

# PUBLIC HEALTH REPORTS

VOL. 40

MAY 22, 1925

No. 21

## STATUS OF VACCINATION IN AMERICAN COLLEGES

By ROBERT T. LEGGE, M. D., F. A. C. S., Professor of Hygiene and University Physician, University of California, Berkeley, Calif.

There has been no case of smallpox among the student body of the University of California at Berkeley since 1907, when the regents adopted the rule that all entrants must possess satisfactory evidence of immunity to smallpox before they can be admitted.

In the State of California for the year ending December 31, 1924, there were reported 9,424 cases of smallpox. As this makes a case rate of 2.41 per thousand population, our pro rata expectation of smallpox cases among the student population, calculated on 10,000 individuals, would be 24 cases for that year—if vaccination were not enforced. There were three cases of smallpox among unvaccinated employees, two of whom were janitors, and one was a stenographer. Students who came in contact with these individuals and with others during an epidemic in our city in 1913, when 5 afflicted persons out of 13 cases died, were absolutely protected. It is therefore needless to offer any arguments save the one that compulsory vaccination should be required of all entrants upon matriculation.

Recently I sent to over 50 colleges and universities that are members of the American Student Health Association in the United States a questionnaire for the purpose of ascertaining whether these institutions required from entering students evidence of successful vaccination; whether they accepted vaccination certificates in absence of a scar; and whether they had had any experience with smallpox during the past 10 years. My object was to ascertain whether the compulsory vaccination requirement of the University of California, which is constantly being attacked by certain opponents on the ground that other colleges do not prescribe such a measure, should be abandoned.

Fifty institutions answered the questionnaire, 25 stating that they required entering students to present evidence of successful vaccination and 25 that they did not. Regarding acceptance of vacci-

nation certificates and the occurrence of smallpox in the institutions the answers were as follows:

Institutions stating that evidence of successful vaccination is required of entering students.....	25						
Institutions stating that vaccination is not required, or that it has been required only for the past four years.....	25						
Acceptance of vaccination certificates as such evidence in the absence of vaccination scar.....	<table><tr><td>Yes.....</td><td>10</td></tr><tr><td>No.....</td><td>24</td></tr><tr><td>Not applicable..</td><td>16</td></tr></table>	Yes.....	10	No.....	24	Not applicable..	16
Yes.....	10						
No.....	24						
Not applicable..	16						
Experience with smallpox in the institution within the past 10 years.....	<table><tr><td>Smallpox.....</td><td>16</td></tr><tr><td>No smallpox....</td><td>30</td></tr><tr><td>Not answered...</td><td></td></tr></table>	Smallpox.....	16	No smallpox....	30	Not answered...	
Smallpox.....	16						
No smallpox....	30						
Not answered...							

Three colleges acknowledged they had had serious epidemics of smallpox during the last decade, but would not volunteer reporting the number of cases. The total number of cases of smallpox during this period of 10 years in 14 colleges was 146.

It is of interest in studying the accompanying tabulated summary of the questionnaire, one column of which contains a brief abstract of the vaccination law of the State in which the institution is located, to note that in the case of Massachusetts and New York their colleges have no record of smallpox. Both of these States have laws providing for the vaccination of school children, which again demonstrates the protection afforded by this public health measure. In contrast is the situation in Utah, where health authorities and school authorities are prohibited from excluding unvaccinated pupils from school or requiring the vaccination of any individual in the community. The University of Utah had a serious smallpox epidemic in 1922.

Princeton University had one case of smallpox before the compulsory vaccination requirement became effective. The University of Missouri reported that the five cases at their institution occurred after the vaccination requirement was enforced. It is the opinion of the writer that the number of cases reported by the latter university is inconsistent, and that the students were not successfully immunized when vaccinated.

## Summary of questionnaire

State	Name of institution	Question 1: Require evidence of successful vaccination?	Question 2: Accept certificates?	Question 3: Cases of smallpox during past 10 years	State vaccination law
California	University of California	Yes	No	No	Vaccination school law amended in 1911. Vaccination not now condition of school entrance. Entire act repealed in 1921 and control of smallpox placed under State board of health.
Do	Stanford University	do	Yes	No cases in past 20 years	Do
Colorado	University of Colorado	No; desires to make compulsory	Yes	No	Local boards of health may require vaccination or exclusion from school when smallpox is prevalent.
Connecticut	Wesleyan University	Yes	No	No; been prevalent in town	Board of education may require vaccination for school attendance. Board of health may provide for general vaccination at public expense. Penalty for refusal.
Do	Yale University	do	do	No	Do
Do	Connecticut College for Women	do	Yes	do	Do
Do	Trinity College	do	do	do	Do
Georgia	University of Georgia	do	No	do	Board of education empowered to insure vaccination. May require vaccination for school attendance.
Illinois	University of Chicago	All undergraduates	do	do	When smallpox is prevalent, school children not admitted unless successfully vaccinated.
Indiana	University of Indiana	No	do	Yes; few cases	Board of health empowered to vaccinate or quarantine suspected persons or persons exposed to smallpox.
Iowa	University of Iowa	Since 1921 all but objectors vaccinated	do	Number of cases, 64	Draught smallpox outbreak a city can prohibit unvaccinated persons from schools and public places.
Do	Iowa State College	No	No	1920 epidemic	Do
Kentucky	University of Kentucky	do	do	1 case	Compulsory vaccination. Board of health rules provide that unvaccinated child shall be excluded from school 25 days after appearance of smallpox in community.
Kansas	Kansas Agricultural College	do	do	15 cases in 10 years; none among vaccinated students	Unvaccinated child not admitted to school unless presenting physician's certificate that such child's health will be endangered by vaccination.
Massachusetts	Mount Holyoke	Yes; for 15 years	Yes	No	Do
Do	Harvard University	No	No	do	Do
Do	Wellesley College	Yes	Yes	do	Do
Do	Inter V. M. C. A.	No	No	Nona	Do
Do	Clark University	do	No	No record	Do
Do	Tufts College	do	Yes	No	Do

## Summary of questionnaire—Continued

State	Name of institution	Question 1: Require evidence of successful vaccination?	Question 2: Accept certificates?	Question 3: Cases of smallpox during past 10 years	State vaccination law
Michigan	University of Michigan	Yes; since 1921. Excuse few on written release. Four cases smallpox 1922; <i>showed no scars</i> .	No	17 cases	Law provides that health officer may offer free vaccination. In case smallpox develops in schools, schools closed and children not permitted to return until vaccinated. If they refuse, they are quarantined 10 days.
Do	Michigan Agricultural College	Yes; 1924	do	2 cases before compulsory vaccination.	Do
Minnesota	University of Minnesota	Yes; excuse objectors. During epidemic, all vaccinated.	do	27 cases	No compulsory vaccination except that during epidemic school child is excluded for three weeks, or until vaccinated.
Missouri	Washington University	No		1 case	Exposed persons not having had smallpox or not having been vaccinated within two years must be confined to the premises for 21 days or submit to vaccination.
Do	University of Missouri	Yes	No	5 cases	Do
New Hampshire	New Hampshire State University	No	No	do	Pupil must be vaccinated or have had smallpox or present certificate from local board of health that he is an unfit subject for vaccination.
New Jersey	Princeton University	do	do	1 case at home	Boards of education may exclude from school unvaccinated teachers or pupils unless they present physician's certificate that they are unfit subjects for vaccination.
Do	Rutgers College	do	Yes	No	Do
New York	Rochester University	Yes; school requirement	do	No history	All school children in cities of first and second classes must be vaccinated and in other parts of State when smallpox is declared epidemic by State commissioner of health.
Do	Vassar College	Yes	do	No	Do
Do	Cornell University	No	No	do	Do
Do	College of City of New York	No; conforms to board of health. All school children vaccinated.	No	No record	Do
Do	Columbia University	No; all New York school children vaccinated.		No	Do
Ohio	Dennison College	Yes	Yes	do	Boards of education may make and enforce rules and regulations to secure vaccination and prevent spread of smallpox in schools.
Do	Miami University	No	No	1922: 3 cases	Do
Do	Western Reserve University	do	No	No	Do
Do	Wesleyan University	do	No	1923: 1 case	Do
Do	Oberlin College	do	No	No	Do
Do	Cincinnati University	Yes; 1924	Yes	do	Do



Oregon.....	University of Oregon.....	No; no State law.....	No record of vaccination; 50 per cent vaccinated	1918: 10 cases.....	School boards may prohibit school attendance of unvaccinated child. Strictly enforced. Regulations of State board of health provide for exclusion of unvaccinated children when small-pox exists in community. Pupils must be vaccinated or have had smallpox.
Pennsylvania.....	Pennsylvania State College.....	Yes; school requirement.....	Yes.....	No.....	Do.
Do.....	Carnegie Institute.....	Yes; 1924.....	No.....	None.....	Do.
Do.....	University of Pennsylvania.....	Yes.....	do.....	No; 100 cases in city.....	Do.
Do.....	University of Pittsburgh.....	do.....	Records of vaccination.....	No.....	Do.
Do.....	Haverford College.....	No.....	Records of vaccination.....	do.....	Do.
Do.....	Lafayette College.....	No; State law requires vaccination in schools.....	Records of vaccination.....	No.....	In event of epidemic, vaccination may be required of pupils.
Texas.....	University of Texas.....	No.....	do.....	No; 1 case.....	Do.
Do.....	Christian University.....	do.....	do.....	Serious epidemic 1922.....	Unvaccinated pupils are excluded from school when smallpox exists, unless they are shown to be unfit subjects for vaccination. Isolation period for exposed susceptibles is 15 days. Prohibits compulsory vaccination, and exclusion of unvaccinated pupils from school.
Washington.....	State College.....	do.....	No.....		
Utah.....	University of Utah.....	No; State law forbids.....	No.....		

## THE SUPPLYING OF DRINKING WATER TO VESSELS IN THE UNITED STATES<sup>1</sup>

By JOEL I. CONNOLLY, Associate Sanitary Engineer, United States Public Health Service, and A. E. GORMAN, Chief, Bureau of Sanitary Engineering, Chicago Department of Health, formerly Associate Sanitary Engineer, United States Public Health Service.

### INTRODUCTION

The sanitary problems for vessels, particularly large passenger ships, are similar to those of any organized community. Considering the fact that the transient population of some vessels may, in the course of a few months or a year, be from 200,000 to 300,000, the equivalent of the normal population of a large city, it behooves the public health official to give serious consideration to sanitary conditions aboard vessels. To-day this floating city may be the focus of infection for a dangerous communicable disease. Tomorrow, before any suspicious symptoms develop, the ship's transient population may have scattered, spreading sickness to cities and towns throughout the country.

By no means the least important public health factor concerned with vessel sanitation is the safety of the ship's water supply. In this paper an attempt is made to outline briefly some of the water supply problems of American vessels in coastwise, river, and Great Lakes services. Government regulations govern these matters both in the United States and Canada. As the operating conditions for American and Canadian vessels are similar, it is not surprising to find much uniformity in the regulations of the two countries. In many instances there is a reciprocal interchange of information between the two in regard to inspections, examinations of water samples, and the issuance of certificates.

Water has many uses aboard a vessel, the most important being for drinking, culinary, ablutionary, fire, boiler, sanitary, cleaning, and ballast purposes. The safety of the water for drinking, culinary, and ablutionary purposes is of great public health significance.

The cost and difficulty of providing an adequate supply of safe water is responsible for the existence of more than one water system aboard a vessel. This is always a potentially dangerous condition and one which the keen public health officer should not overlook.

The quality of the water in which a vessel plies is the controlling factor in the choice of the source of the drinking supply. Because of the salt in sea water, water from overboard can not be used for drinking purposes on coastwise vessels unless it is distilled—an expensive process at best. River waters in the United States are often too grossly polluted by sewage and industrial wastes to be

<sup>1</sup> Read before the Sanitary Engineering Section of the American Public Health Association at the fifty-third annual meeting at Detroit, Oct. 21, 1924.

satisfactory sources for drinking water. The waters of large inland lakes such as the Great Lakes are generally of a high degree of purity, but subject to serious local pollution in the vicinity of cities. Because of these conditions the use of overboard water for drinking and culinary purposes on coastwise vessels is uncommon, whereas on a few inland river vessels and on most Great Lakes vessels, water from this source is used after being properly treated. Two distinct divisions of the vessel water supply problem, then, may be recognized: (1) Where water is obtained from sources ashore, and (2) where it is taken from overboard.

#### WATER SUPPLIES OBTAINED FROM ASHORE

When water is taken from sources ashore, it is usually from the public supplies of the cities where the ships call. These sources, when satisfactory, are certified for the vessels' use by the Surgeon General of the United States Public Health Service, who bases his action upon a report submitted by the State health department having jurisdiction.

Given a satisfactory source (a safe water) the question resolves itself into one of getting the water aboard in a sanitary manner and of storing and distributing it so that its quality will not be impaired.

One source of danger is the occasional presence of a dual water system on docks and in shipyards, in which case a mistake in hydrants might result in the filling of drinking-water tanks from an impure supply of water intended only for fire protection. Last year two acute outbreaks of diarrhea among the crews of Great Lakes freighters were traced to this cause when vessels were laid up for repairs in shipyards. Such visits to the yards on the Great Lakes are most frequently made in spring and fall, when outfitting for the busy summer season or when getting ready for the winter tie-up. The number of typhoid-fever cases among vessel crews in the past has shown an increase at these seasons. Since measures have been taken to prevent the accidental filling of tanks from impure supplies, the high spring and fall incidences of typhoid have been reduced. On the Lakes the practice has been to identify hydrants by painting white—the emblem of purity—those supplying pure water, and the others red—the danger signal. Mars reports that, on the Pacific Coast, the use of white for fire hydrants is favored, since it makes them more easily visible at night. This diversity of practice clearly indicates the need for uniformity in the identification of hydrants.

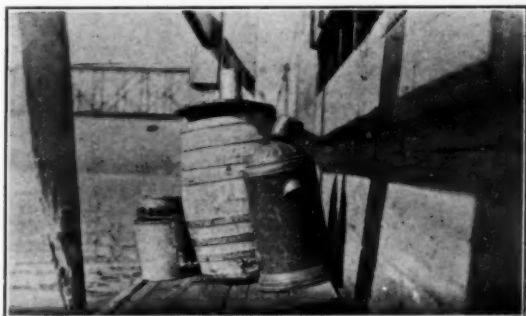
A second possible source of danger is the medium used for transporting the water from the hydrant to the vessel. Where delivery is made by hose the exercise of ordinary care will suffice. It is not always possible, however, to use a hose. Such is the case, for instance,

when vessels do not come to the dock. Then, water is usually purchased from a water boat. The water boat is usually a tug equipped with tanks built in the hull and with large capacity pumps. Sullivan has drawn attention to the fact that in salt-water harbors there is little danger of water boats being supplied from overboard, owing to the salinity of the water. In fresh-water harbors, however, such as Philadelphia and New Orleans, this danger is imminent. Water boats supply water for boiler as well as for drinking purposes.

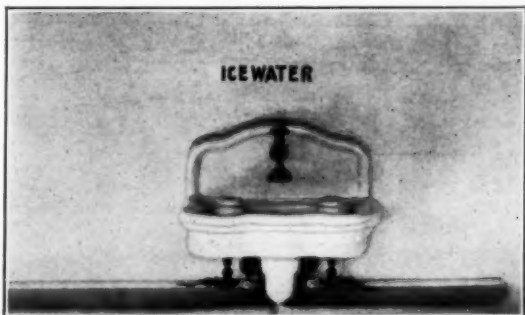
It is the aim of the Public Health Service to have all water boats equipped with special drinking-water supply tanks entirely separate from the hull of the vessel, and also to have independent pumps for delivery purposes and no overboard or bilge connections of any kind. A practical difficulty has been that, because of the use of these vessels as auxiliary fireboats, the owners insist on having overboard connections to the large pumps. Furthermore, the installation of an additional pump in the usually crowded engine room is not easy. Since it is cheaper to pump water from overboard than to buy it from the city, keen competition among water boats may result in trouble unless the water boat owners are fully sensible of their responsibilities. The health officer should be aware of these factors and be governed accordingly.

Where the dock is fixed in position, the hydrants are easily arranged; but complications arise when the dock must be moved back and forth with the rise and fall of the water, as is usually the case on the great inland rivers, such as the Ohio and Mississippi Rivers. In the former instance they should be conveniently located above the wharf floor and close enough to the edge to permit a short hose to reach the vessel. A short hose is desirable in order to guard against the danger of having the end of the hose drop into a polluted harbor. The hose connection should point downward to insure cleanliness.

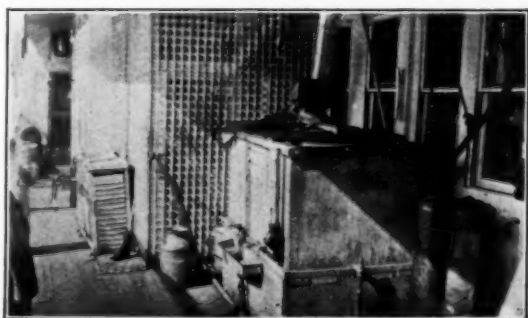
At river docks the wharf usually floats, and therefore rises and falls according to the water level. It is connected to the shore by a landing stage long enough to reach dry ground while the wharf boat is floating in the stream with steamers lying alongside. The usual provision consists of a pipe line from the shore end of the landing stage to the river side of the wharf boat, where the vessels dock. Each end has a hose coupling, the outer one for the short hose to the vessel and the other for a similar short hose to the nearest of a series of hydrants on the incline or bank. These hydrants are situated at different levels, so as to permit the use of a short hose at any river stage, and are in boxes below ground, so that they will not interfere with trucking on the incline or constitute a danger to navigation when submerged. It is necessary to guard against having the pipes and hydrants washed out during floods or covered with thick deposits of mud.



The old.—Drinking water was formerly stored in such containers as these, open or with removable covers, from which the water was dipped with the common drinking cup. The ice was in contact with the water



The new.—Present-day bubbler fountain supplying pure drinking water, cooled by passing through a coil of pipe in the ice box. The water does not come in contact with the ice. (Type of fountain now recommended is that having angle jet, protected orifice, and sanitary guards.—Ed.)



Contrast of old and new.—The milk can, formerly used, from which the water was obtained by means of the common drinking cup, and the present-day water tank in which the water is chilled without contact with ice, delivered by pipes to taps, and drawn in individual paper cups from slot machine on front of cooler. (Excursion steamer at Pittsburgh, Pa.)



Levee at Memphis, Tenn., showing a flush hydrant, with cover removed, near the end of the landing stage, ready to be connected by hose to the pipe on the landing stage leading across wharf boat to steamer



Levee at Cincinnati, Ohio, showing hose conducting water from the flush hydrant in the foreground to the pipe line along the bottom chord of the landing stage

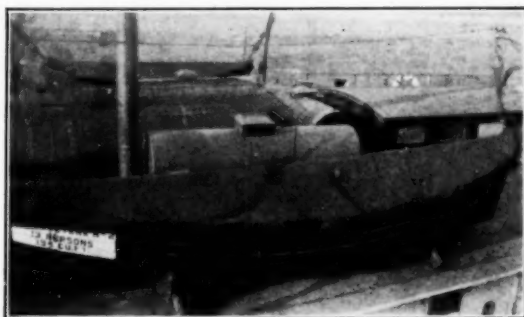


Landing stage at Paducah, Ky., wharf boat, showing pipe line with hose connected

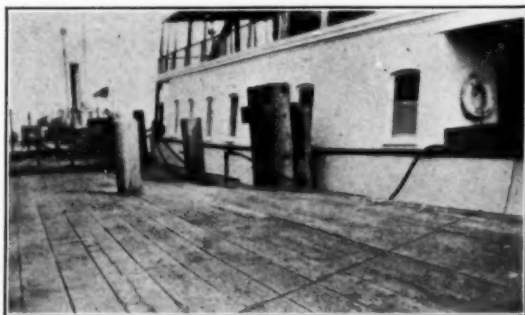




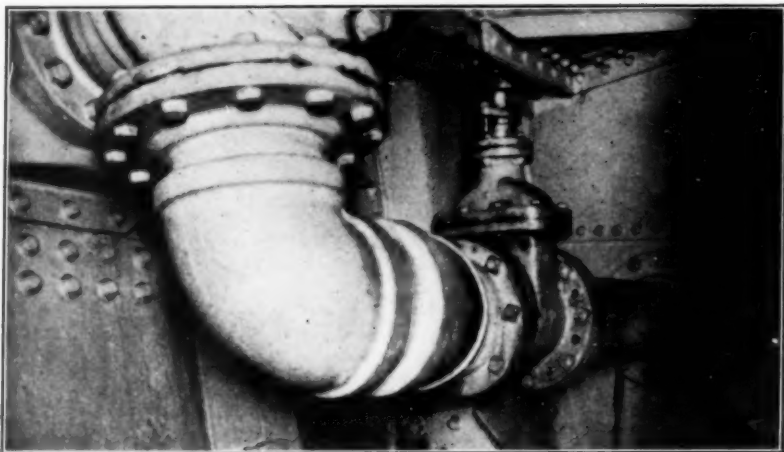
Detail showing flexible permanent hose connection of pipe on wharf boat with pipe on landing stage, necessitated by the raising of the stage. Paducah, Ky.



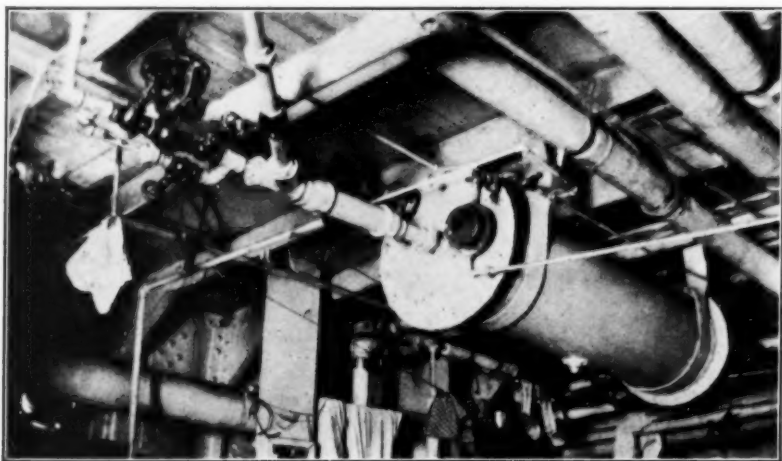
Storage tanks for gravity distribution system. Overlapping covers are locked. Where tanks are in close proximity to each other, as they are here, drinking-water tanks are identified by signs



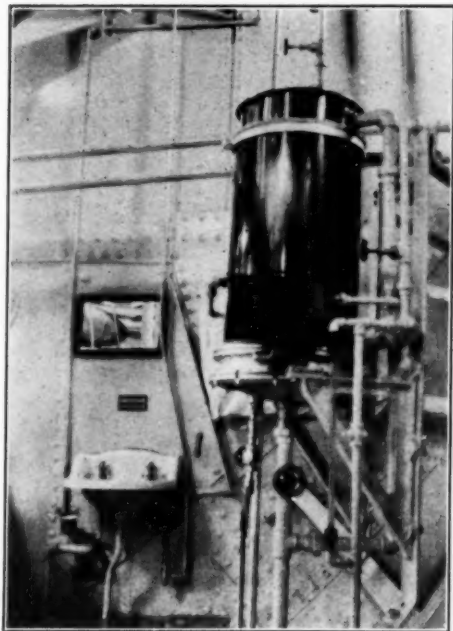
Hydrant on dock, as used on the Great Lakes and the seacoast. Short hose extends to pipe on vessel alongside of dock. This view shows the desirability of having short hose in order to avoid having one end fall into polluted harbor water. Detroit, Mich.



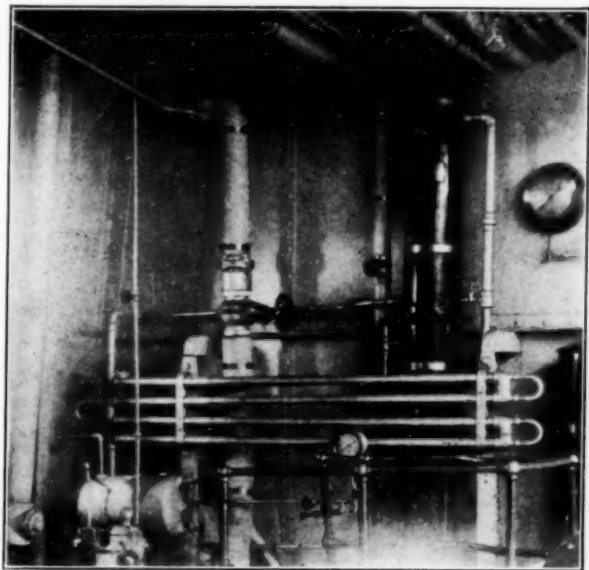
A 12-inch sea-cock connection (on a large passenger vessel) used in taking drinking water from overboard. Below is shown a small "weep pipe" used for draining the large pipe when it is not in use and also for detecting leakage of the large valve. Cleveland, Ohio



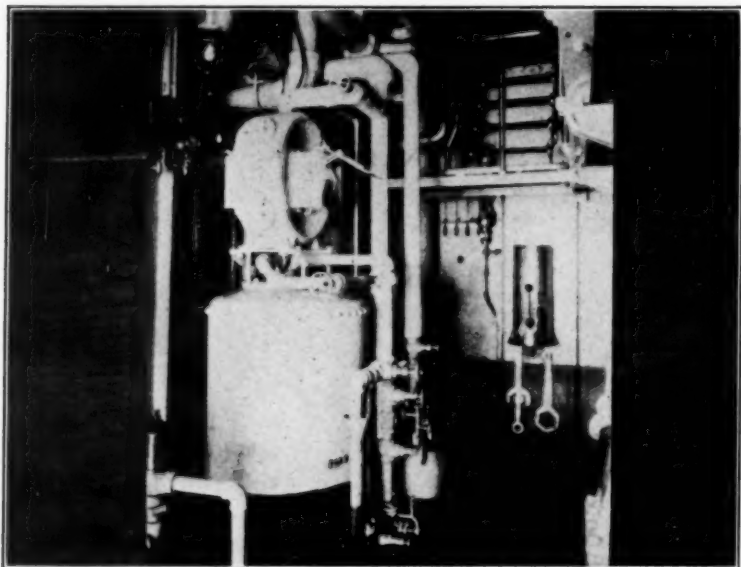
A step in the development of apparatus for treating water from overboard. A tank, equipped with thermostatically controlled valves, for holding water at high temperature for definite periods. Detroit, Mich. (This apparatus is not now used)



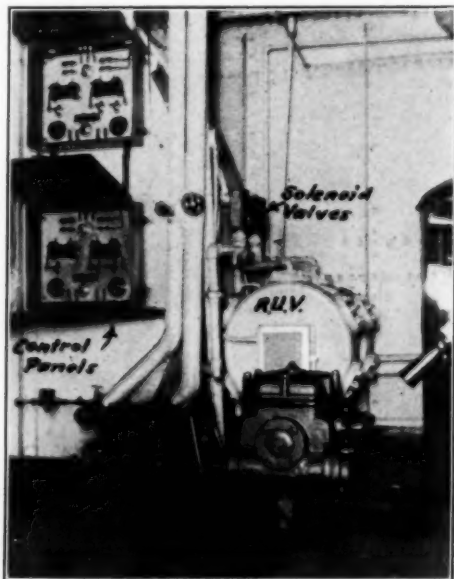
Polar still for treating water from overboard that is to be used for drinking and culinary purposes. Another supply is provided for washing; and warning signs, as shown, are posted over the washbowls



Tripure still, heat exchange, control tank, and distributing pump



Filter and R. U. V. sterilizer. Alum pot for coagulent is shown at right of filter, together with the control valves. Chicago, Ill.



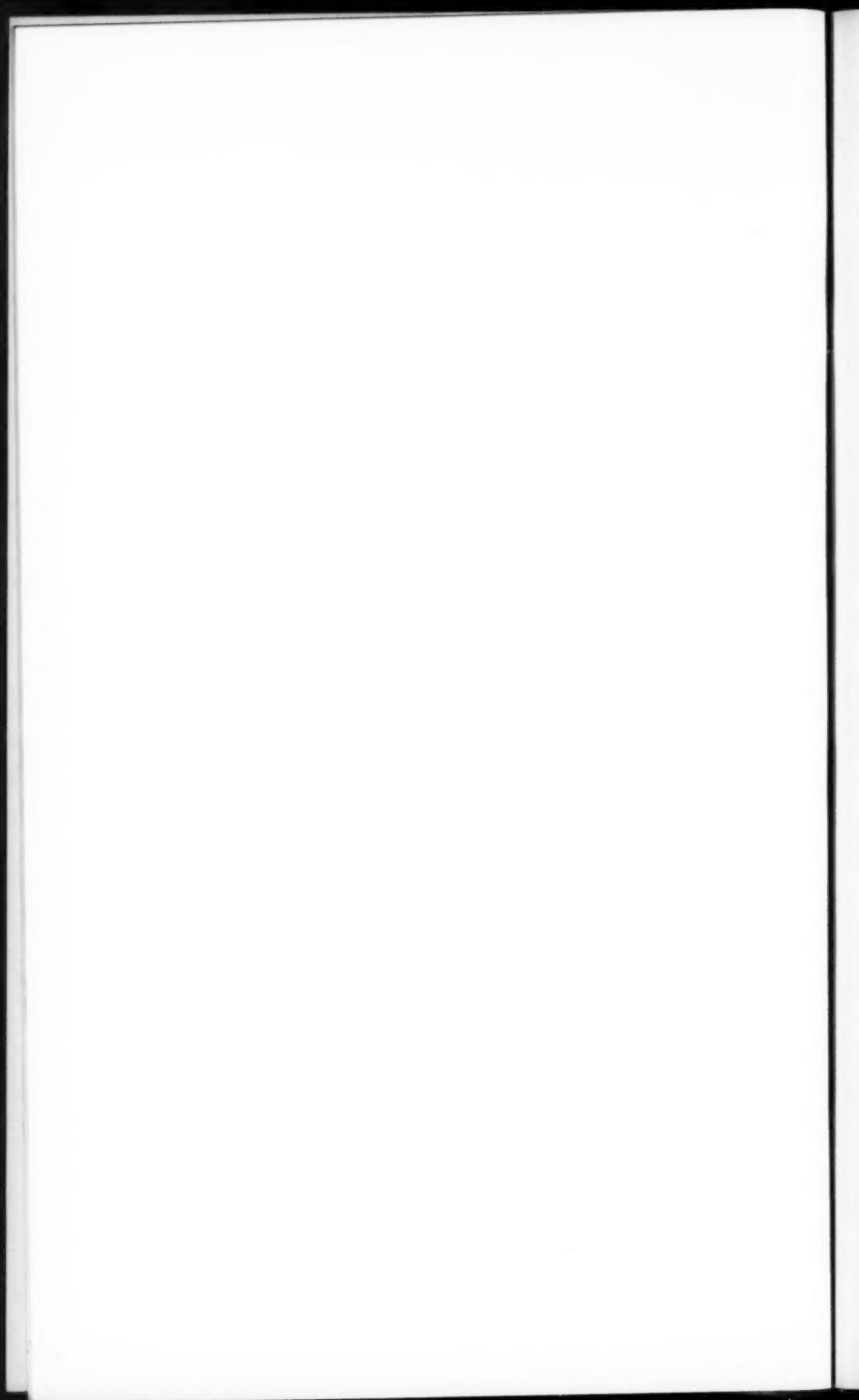
Two R. U. V. sterilizers used in series, pump, control panels, and solenoid valves. The latter prevent the passage of water through the sterilizers until the voltage across the lamp becomes high enough for effective disinfection. Buffalo, N. Y.



Pittsburgh levee during construction of pipe line for vessels. Dotted lines show the arrangement of pipes below the ground surface, with risers at intervals leading to hydrants flush with the surface. This use of flush hydrants avoids interference with trucking on the incline.



Levee at Pittsburgh, Pa., during construction of water mains for supplying city water to vessels, showing usual arrangement of wharf boat and landing stage, with steamer beyond the wharf boat.





Before these arrangements were made, the drinking water was taken aboard in barrels, milk cans, or any other containers that fancy or convenience might suggest, with, consequently, almost continuous contamination. Now, water may be obtained in a sanitary manner at frequent intervals along all inland rivers on which there is any appreciable amount of shipping. In some cases the cities have installed the necessary pipe lines and hydrants as a public health measure, notably at Pittsburgh, Pa., and Memphis, Tenn. At other places the vessel companies have constructed their own service lines on the incline.

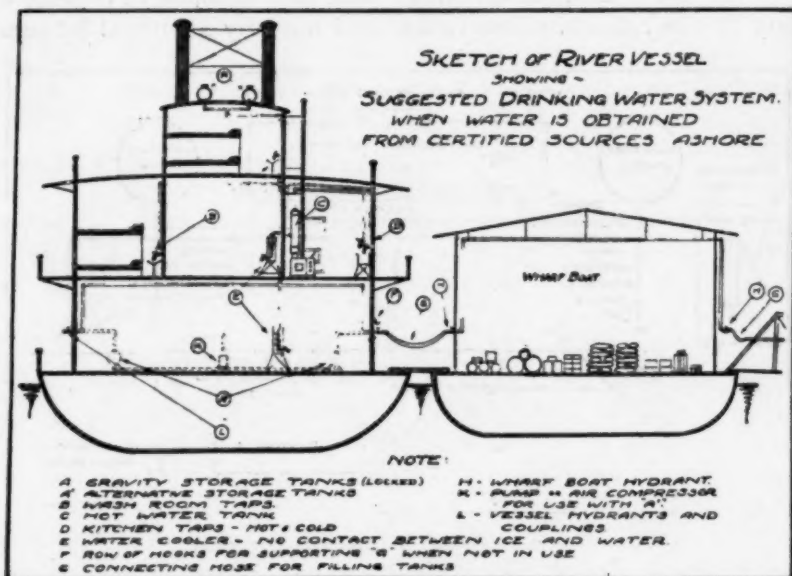


FIG. 1

The cooperation of city water departments in this matter and of city and State health departments in the collection and examination of samples of drinking water from vessels has been extremely helpful in securing improvements in the water supplies.

A hose should be reserved for filling the drinking-water tanks alone, and it should, therefore, be properly identified. It should be provided with screw couplings at both ends and when not in use should be stored on a reel in a clean container either on the dock or on the vessel, preferably the latter. A licensed officer is usually made responsible for its proper care.

On the vessel, pipes should be run to the sides at convenient places, ending in down-turned hose couplings. The couplings should be so located as to permit a minimum length of hose to reach the hydrant at the dock. They should be well above the deck and should be

capped when not in use. Many vessels have the drinking-water filling pipes and distribution pipes painted blue to distinguish them and to guard against accidental cross connections to other water pipes. It is anticipated that eventually this practice will be universal.

The storage tanks are of two kinds: (1) Those for gravity distribution systems, which are, necessarily, on the upper decks, and (2) those with pressure systems, which are commonly located in the hold of the ship.

If gravity tanks are exposed, they should be protected against freezing by insulation or steam pipes. To avoid mistakes when being filled the tanks used for drinking water should not be in close proximity to other tanks, unless locked and properly identified by signs.

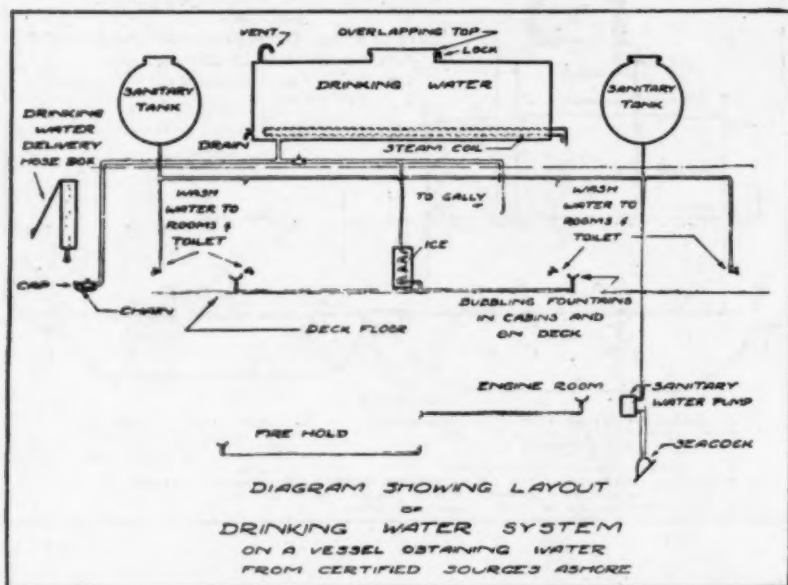


FIG. 2

They should have vents ending in goosenecks (that is, pipes with the ends bent downward) and overlapping lids. Delivery is made to these tanks direct from ashore by the city pressure, when connected as outlined above, thereby eliminating pumping. Large gravity feed tanks have the disadvantage of putting the weight where it tends to make the vessels top-heavy, and therefore care must be used in selecting their location.

Tanks in pressure systems are usually in the forward or after peak, or end compartments, of the vessel, or in the shaft alley between the engine room and the stern. Tanks used for the storage of drinking water should not be formed even in part by the hull, a deck, or a bulkhead of the vessel, lest the loosening of a plate permit the entrance

of polluted harbor or bilge water. As a result of impact in docking and of vibration, the shearing of rivets often causes plates to start and seams to open, especially in the bow and stern. This precaution is not so important in the case of tanks storing water for subsequent treatment. The presence of drainage pipes or soil pipes passing through the tanks is a condition which at one time was fairly common, but is now, happily, a thing of the past.

To permit the complete draining of the tanks they should be equipped with proper drains. These should be above the level of the bilge water. If entrance to the tanks is through a deck manhole, the collar should extend above the deck several inches to protect the opening. The cover should be water-tight, preferably with a plate and gasket bolted to a flange. Care must be taken to guard against bolt holes or other openings in the top of the tank through which contamination might enter. Before passing upon the condition of a water system on a vessel, the tanks are carefully examined for openings and leaks. The tanks should not be located very close to boiler rooms because of the temperature, which gives rise to high bacterial counts and requires more cooling before a palatable water can be delivered. One of the forward compartments and the shaft alley are good locations for the tanks, as these places are usually cool and not readily adaptable for other purposes. Peak tanks, forward or aft, are usually undesirable for the storage of water because it is common practice to put crews' toilets on the main deck above them.

The tanks, almost without exception, are made of steel and therefore require protection against rust, especially in case distilled water is stored in them. Coatings of various kinds are used, particularly cement grout, bituminous materials, enamel, and glass. Ordinarily entrance into the tanks is necessary but once a year, for repairs and renewing the protective coating, and entrance for other purposes is forbidden. After they have been entered they must be sterilized, for which purpose a solution of calcium hypochlorite, 1 pound to 5,000 gallons, is commonly used, followed by thorough flushing to get rid of the taste.

The piping systems for cooling and distributing the water also present various health hazards. Cooling must be done in such a manner that the ice does not come into contact with the water. Two methods are most common: (1) A coil of pipe in an ice box, preferably close to the bubbler or outlet where the water is to be drawn; and (2) a scuttle-butt in connection with the refrigerating machine and a special circulating system for ice water, having its own pump. The circulating system is necessary with ice machines to avoid having the water in the scuttle-butt freeze and burst it.

Special pumps are required for the water used for drinking and culinary purposes, wholly disconnected from impure water systems, the bilge, or sea cocks. The use of compressed air, as in Pullman cars, is not considered advisable, as it involves an extra unit of machinery—the air compressor.

One of the greatest sources of trouble in the past has been the existence of cross connections in the distribution system or used in attempting to make one pump serve for both drinking water and other water (such as bilge water) in emergencies. A number of serious epidemics of water-borne diseases have been traced to cross connections on vessels.<sup>1</sup> This danger is an insidious one because the piping systems on the larger vessels are extensive and it is easy to have an accidental cross connection in some out-of-the-way corner. The most common location of such connections has been, however, in the engine room and boiler room, especially in the manifold system, the boiler-feed-water system, and in connection with pumps intended to serve a double purpose in emergencies. Another type is the by-pass around treatment apparatus. All these cross connections are expressly forbidden by regulations and must be removed wherever found.

Sometimes a special fitting is kept for installation, as an emergency by-pass around treatment apparatus in case of a break down. It is painted red as a danger signal, and whenever it is used the water must be disinfected by some special means, such as by emergency chlorination with hypochlorite solution, and the district engineer of the Public Health Service in charge must be notified of the time during which the by-pass was in use and of the safeguards employed during that time.

The full line in Figure 3 shows the improvement that has taken place in the drinking-water supplies on vessels when the supplies are taken from sources ashore, as revealed by the proportion of samples which showed the presence of *B. coli* upon examination.

#### WATER SUPPLIED FROM OVERBOARD

Water taken on vessels from overboard is delivered through sea cocks. These sea cocks are located below the water line and, therefore, there is always a positive pressure against the valves, necessitating tight connections to prevent seepage. Invariably harbor waters are grossly polluted, and, therefore, the sea cock is always a dangerous connection to any drinking-water system. The clogging

<sup>1</sup> Outbreak of Gastro-Enteritis and Typhoid Fever Due to Drinking Water on Excursion Steamer. By L. L. Lumsden. Pub. Health Rep., Nov. 29, 1912.

The Water Supplies of Ships. By Hugh de Vallin. Pub. Health Rep., Feb. 13, 1914.

Drinking Water on Interstate Carriers. By J. G. Cobb, C. L. Williams, and H. P. Letton. Pub. Health Rep., Oct. 13, 1916.

Epidemics from Steamboat Water Supplies. By Joel I. Connolly. Transactions of the Second Annual Conference of State Sanitary Engineers. Pub. Health Bull. No. 123, Dec. 1921.

of valves by débris and the accidental opening of or failure to close sea-cock valves in port are very serious matters to be considered when overboard water is used for the drinking supply. Even in the outer waters of the Great Lakes the taking on of drinking water from overboard is fraught with dangers. Vessels usually ply on well-defined courses, and during the heavy shipping season there may be distinct lanes of pollution along these courses due to the universal practice of discharging sewage and wastes overboard.

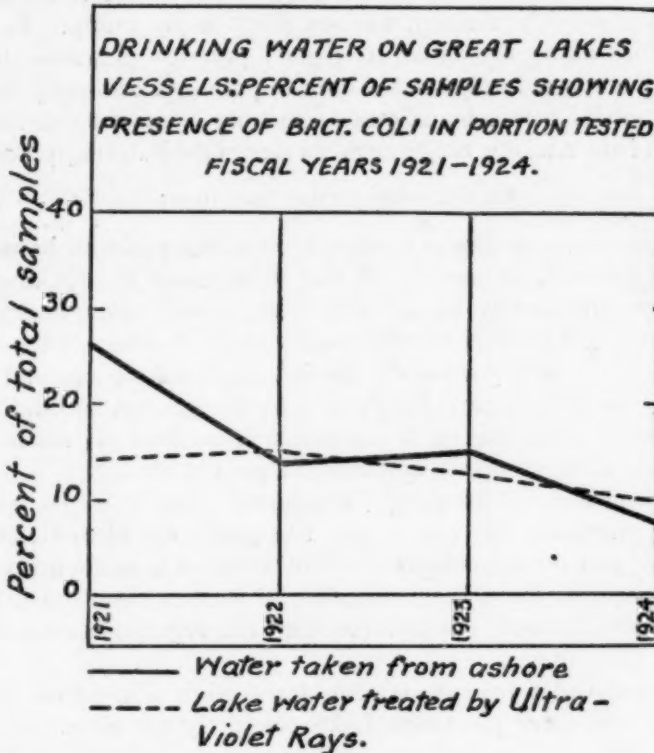


FIG. 3

When possible, the sea cock through which the drinking-water is taken aboard should be independent of all other sea cock connections. Naval architects usually design to place sea cocks convenient to the engine room. Not infrequently these intakes are set without regard to the toilet outlets. The latter are usually near the water line. On side-wheelers the paddles often bring the discharged filth down to the depth of the sea cock. Sea cocks for drinking-water inlets should be forward of all toilet outlets or at least on the opposite side of the vessel from such outlets.

Not infrequently sea cocks are interconnected by large lines of horizontal piping. The fouling of any one of these lines is a difficult



matter to correct. It is good practice to have double valves on all sea cocks serving the drinking-water system and to have an open valve or "weep pipe" between them. This arrangement gives warning of any leakage by the outer valve. The locking of sea-cock valves has been successfully practiced on some vessels.

Storage tanks for drinking-water are usually of two groups: one for the raw water and the other for the treated water, adequately protected from pollution by bilge water, and well vented. All units should be in duplicate. Delivery to raw-water tanks may be by gravity directly through the sea cock or by pump. In either case, before filling the tanks it is good practice to waste the first portion of water entering the sea cock to permit a thorough flushing. A vessel should have adequate tank capacity to meet maximum conditions for its cruising range between desirable watering places.

#### WATER TREATMENT METHODS

Distillation is a common method of treating water to be used for drinking purposes on vessels. Water so obtained is, of course, safe; but it not infrequently has a "flat" disagreeable taste, is expensive to produce, and attacks metallic containers. Because of the cost of production, the supply is usually limited, necessitating a second source of supply for ablutionary purposes, which is at best an undesirable arrangement. Distillation is the common method of treatment on Great Lakes freight vessels and inland river vessels.

Other methods of treating "overboard" water to be used for drinking purposes on vessels are treatment by ultra-violet rays, by ozone, and by hypochlorites. Filtration as a preliminary treatment is required for efficient disinfection in each case, since the raw waters may at times contain considerable organic matter in suspension.

The ultra-violet ray process for disinfection is used on 33 large passenger vessels of the Great Lakes fleet. It has given very satisfactory service where it is properly operated. In this process it is important that the proper voltage be maintained within reasonable limits and that the quartz tube and mercury vapor lamp be kept clean at all times. Weekly cleaning is desirable. Equipment of this type on Great Lakes vessels is provided with electrically controlled valves to prevent automatically the passage of water through the sterilizer when the voltage is too low for efficient disinfection.

The dotted line in Figure 3 gives the percentage of samples of water taken from overboard, filtered, and treated by ultra-violet rays upon Great Lakes vessels, that show the presence of *B. coli*. Although there is a less marked improvement during the past four years than with water taken from ashore, the effect of improved apparatus and better operation is evident.



On two Great Lakes passenger vessels and two Mississippi River excursion boats ozone water treatment apparatus have been operated. Where glass dielectrics were used, considerable difficulty was experienced with breakage of dielectric plates due to the heat of short circuits resulting from moisture being deposited on the plates. Where the mica dielectrics were used and the contact of ozone and water was sufficiently intimate and prolonged, satisfactory results have been obtained.

Last year, apparatus were installed on two large Great Lakes passenger vessels and on a few freighters for treating overboard water by a solution of sodium hypochlorite. The stock solution is delivered to the water at the desired rate in proportion to the pumpage, through an injector supplied by a revolving disk geared to a water meter. The disk, which dips into the hypochlorite solution, contains, in its periphery, a series of holes which, owing to surface tension, retain definite quantities of the solution, depending on the diameter of the hole. With this method, control over the adequacy of treatment should be carried out by tests for residual chlorine. Serious objections as regards the taste of the water have not been reported as yet.

In considering these three treatment processes, as compared with distillation, it should be borne in mind that any of these methods can economically produce a safe water in quantities available for all domestic purposes—drinking, culinary, and ablutionary. This is a distinct public health advantage, as dual water systems serving the crew and passengers are potentially dangerous.

Careful operation is necessary with any of these treatment methods if good results are to be obtained.

An important factor in the future control of the quality of drinking water is the growing practice of submitting the plans of new vessels to the sanitary officers of the Government before the vessels are built. In this way an opportunity is given for criticisms at a stage which will permit the water system of the vessels to be built right, thus avoiding the necessity for later changes.

#### RESULTS OF SANITARY CONTROL OVER DRINKING WATER

The typhoid fever rate of a community is generally accepted as furnishing an indication of the sanitary quality of its drinking water and food. Unfortunately it is difficult to get statistics for the passengers, as they come from so many localities. The reservation book of a single Great Lakes tourist vessel will frequently show the names of passengers from California and Maine. There is, however, a yardstick that we can use—the typhoid-fever rate for the crews of vessels. This information is available from the records of the United States marine hospitals.

It is estimated that four and a half million passages are taken on Great Lakes vessels alone each season. The crews which man this fleet represent about 25,000 men. During the five years, 1901 to 1905, an average of over 150 typhoid-fever cases a year among Great Lakes seamen were hospitalized at the marine hospitals. During the past five years this average has been less than 20. Figure 4 shows the drop in the typhoid-fever rates of Great Lakes seamen hospitalized at United States marine hospitals in the 10 years from 1915 to 1924, inclusive, during which time the United

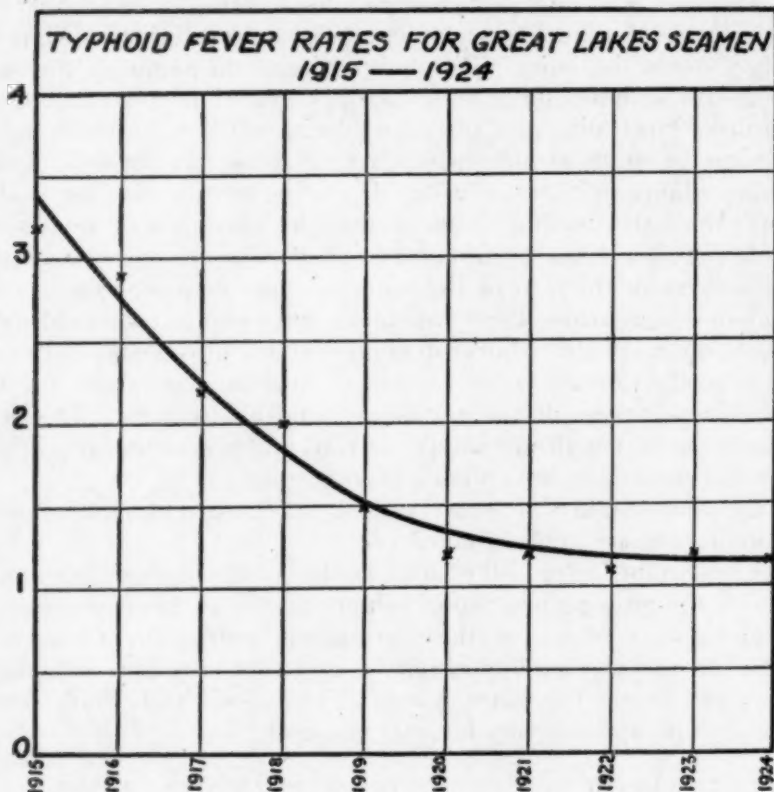


FIG. 4

States Public Health Service has been active in securing improvements in sanitary conditions on the vessels.

There is a small amount of typhoid which is due to contacts, or which is contracted by members of crews ashore, which can not be attributed to conditions on the vessels, and it is believed that this minimum is being approached at present. This belief is strengthened by the fact that the rate curve shown in Figure 4 is becoming asymptotic. The large number of crews, each constituting its own small community, makes the situation comparable to

a rural section, except that there are probably more dangers to be guarded against on shipboard, such as the presence of several water

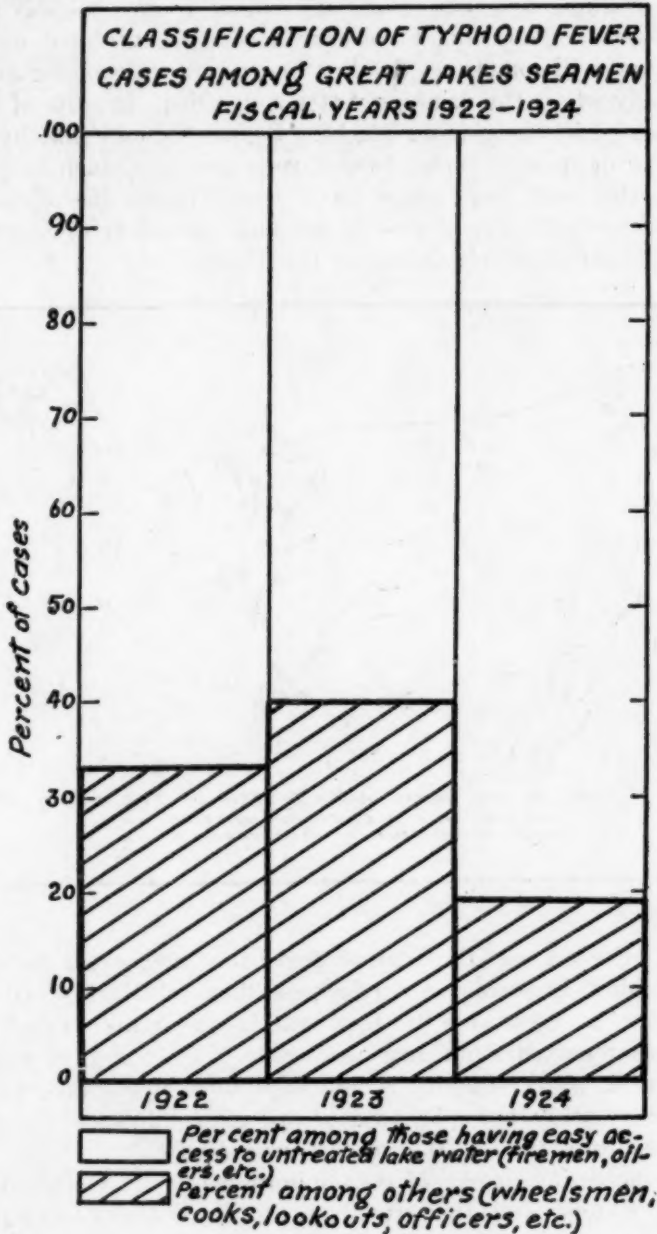


FIG. 5

systems. The present typhoid-fever death rate among Great Lakes seamen—8 per 100,000—compares favorably with the average

41707°—25†—2

typhoid rates in rural communities where the population is similarly spread out in many small groups.

Men working in boiler rooms and engine rooms, such as firemen, coal passers, oilers, etc., have easy access to untreated overboard water, and will sometimes drink it because of its coolness and taste (especially where the drinking water is distilled), in spite of warning signs posted in conspicuous places. Figure 5 shows that by far the largest proportion of typhoid-fever cases among seamen hospitalized during the past few years have come from this class, while the members of the crew who do not find raw water so conveniently accessible are relatively free from the disease.



FIG. 5

It is believed that the typhoid fever that now exists is due more to individual ignorance or carelessness than to a lack of safe drinking water, as shown by the fact that last year not more than one case was reported from any one vessel. The value of the supervision over water supplies is indicated by a much higher typhoid rate on vessels where, because of special conditions, the Government control is limited, than on other vessels.

The increasing degree of contamination of our rivers, lakes, and coastal waters, and the growth in transportation by water, are making vessel sanitation, and especially the furnishing of a safe drinking water, a problem of increasing importance and difficulty. However, with the cooperation of the vessel companies and their great associations (such as the Lake Carriers' Association, which

embraces in its membership about 80 per cent of Great Lakes tonnage), the various city and State health departments, and the Governments of the United States and Canada, encouraging progress is being made, and we can look into the future with hope and confidence.

## CONFERENCE OF STATE AND TERRITORIAL HEALTH OFFICERS WITH THE PUBLIC HEALTH SERVICE

PROGRAM OF THE TWENTY-THIRD ANNUAL CONFERENCE TO BE HELD JUNE 1 AND 2, 1925, AT THE BUREAU OF THE PUBLIC HEALTH SERVICE, WASHINGTON, D. C.

The following is the program of the twenty-third annual conference of State and Territorial health officers with the United States Public Health Service, to be held on June 1 and 2, 1925, at the Bureau of the Public Health Service, corner of New Jersey Avenue and B Street SE., Washington, D. C.:

### Morning Session, June 1—9.30 a. m.

1. Opening address: Dr. Hugh S. Cumming.

2. Roll call.

3. A plan for the establishment of a morbidity registration area.

Dr. B. J. Lloyd will open this discussion along the following lines:

- (a) The data that should be obtained.
- (b) The present status of the collection of such data in the United States.
- (c) The facilities which the Federal Government is able to furnish.
- (d) A plan to establish a morbidity registration area comparable to the birth and death registration areas of the Bureau of the Census.

Under the latter head will be presented a map of a proposed initial area and a system of checks intended to determine the eligibility of a given area for inclusion.

4. A State-wide program of milk control.

The program recommended by the Public Health Service is as follows:

- (a) Standardization of milk sanitation in the United States.
- (b) Periodic measurement of progress of milk sanitation in the United States.
- (c) Special investigations consisting of (1) milk-borne disease prevalence; (2) design and operation of pasteurization machinery; (3) sterilization of milk utensils and equipment; (4) refrigeration, and others.

This program has been adopted by 6 States and 33 cities. It is hoped that the States and cities of the country can agree upon this or some equally effective program as standard. The discussion will be opened by Dr. A. M. Stimson and Associate Sanitary Engineer L. C. Frank.

5. The occurrence of plague in the United States since the last annual conference, and control measures taken.

Within the past 12 months, human and rodent plague have occurred at Los Angeles, Calif., and rodent plague has appeared at Oakland, Calif., and New Orleans, La. Dr. W. F. Draper will open the discussion on plague by reviewing briefly its past history in the places mentioned and describing the present status of eradication work.



## Afternoon Session, June 1—2 p. m.

## 6. The routine reporting of county health work.

Several forms for the reporting of the work of county health departments are in use by the several agencies concerned. A single report form covering all salient features of county health work and acceptable to all agencies would be of great advantage. Dr. L. L. Lumsden will open the discussion on this subject.

## 7. The practicability and desirability of utilizing the services of advanced and selected medical students during the summer months in the field of public health.

It has been suggested that desirable medical school graduates might enter the field of public health if they became interested in the work while they were undergraduates. It is desirable to ascertain whether a plan can be worked out whereby medical students can be given summer employment in State health work. Dr. John A. Ferrell will open the discussion on this subject.

## Morning Session, June 2—9.30 a. m.

## 8. Stream pollution as a public health matter.

At the present time the majority of cities discharge their sewage into waterways without treatment. There are well-established measures by which any city may purify its own sewage and it may procure a water supply of safe quality by applying modern methods of water purification.

With the continuing rapid growth of urban population, it seems inevitable that inland streams must become so polluted that practicable methods of artificial water purification will no longer suffice. It may be necessary, perhaps in a not far distant future, to establish some system for the control of sewage pollution in entire river systems not only to prevent local nuisance, but to protect water supplies taken at more or less distant points downstream.

Dr. W. H. Frost, of the Public Health Service, will open the discussion on this subject.

Dr. J. E. Monger will present a report on phenol pollution of public water supplies.

## 9. Cooperative measures for the sanitation of shellfish areas and shucking houses.

Dr. W. F. Draper will review briefly the incidents leading up to the present work of shellfish sanitation in cooperation with State and local authorities. The present status of these activities will be described. Dr. W. H. Frost will present a progress report on the work of the committee appointed by the Surgeon General to assist in carrying out the resolutions of the shellfish conference on February 19, 1925.

## 10. Progress report of studies of administrative health practice.

Dr. Paul Preble will give a brief review of the events leading to the establishment of the office of administrative health practice in the Public Health Service. He will present a summary of the methods employed in the 1924 survey of 100 of the largest cities. He will describe the present status of the work and the impressions gained thus far.

## Afternoon Session, June 2—2 p. m.

The conference will meet at the Hygienic Laboratory, where it will be divided into small groups for the presentation of demonstrations on the following subjects:

The new scarlet fever preparations: Doctor McCoy.

Narcotic drug addiction: Doctor Kolb.

Considerations in smallpox control: Doctors Leake and Armstrong.

Tularaemia: Doctor Francis.



## PAN AMERICAN SANITARY CONVENTION PROCLAIMED APRIL 28, 1925

The President's instrument of ratification of the Pan American Sanitary Convention signed at Habana, Cuba, on November 14, 1924, was deposited with the Government of Cuba on April 13, 1925, and the convention was proclaimed by the President on April 28, 1925. The ratification of this convention, adopting the Pan American Sanitary Code, was advised by the Senate on February 13, 1925.<sup>a</sup>

### DEATHS DURING WEEK ENDED MAY 9, 1925

*Summary of information received by telegraph from industrial insurance companies for week ended May 9, 1925, and corresponding week of 1924. (From the Weekly Health Index, May 12, 1925, issued by the Bureau of the Census, Department of Commerce)*

	Week ended May 9, 1925	Corresponding week, 1924
Policies in force.....	59, 726, 946	55, 940, 230
Number of death claims.....	11, 744	11, 488
Death claims per 1,000 policies in force, annual rate.....	10.3	10.7

*Deaths from all causes in certain large cities of the United States during the week ended May 9, 1925, infant mortality, annual death rate, and comparison with corresponding week of 1924. (From the Weekly Health Index, May 12, 1925, issued by the Bureau of the Census, Department of Commerce)*

City	Week ended May 9, 1925		Annual death rate per 1,000 corresponding week, 1924	Deaths under 1 year		Infant mortality rate, week ended May 9, 1925 <sup>1</sup>
	Total deaths	Death rate <sup>1</sup>		Week ended May 9, 1925	Corresponding week, 1924	
Total (62 cities).....	6, 758	13.2	<sup>2</sup> 13.2	773	<sup>3</sup> 846	.....
Akron.....	31	.....	.....	5	5	55
Albany.....	37	16.1	19.4	7	5	156
Atlanta.....	75	16.8	18.8	7	14	.....
Baltimore.....	253	16.6	15.3	25	21	73
Birmingham.....	56	14.2	18.2	6	5	.....
Boston.....	224	14.9	14.5	27	31	71
Bridgeport.....	23	.....	.....	2	2	32
Cambridge.....	26	12.1	13.5	4	1	69
Camden.....	34	13.8	13.2	5	9	82
Chicago.....	706	12.3	12.0	97	83	86
Cincinnati.....	114	14.5	14.4	7	11	41
Cleveland.....	187	10.4	10.0	19	26	47
Columbus.....	85	16.2	13.2	7	5	66
Dallas.....	53	14.3	11.7	7	8	.....
Denver.....	77	.....	.....	9	10	.....
Des Moines.....	38	13.3	15.1	4	5	69
Detroit.....	258	.....	.....	46	56	78
Duluth.....	11	5.2	6.7	1	1	21
Erie.....	26	.....	.....	1	4	20
Fall River.....	32	13.6	16.4	11	6	158
Flint.....	19	.....	.....	4	2	66
Fort Worth.....	21	7.2	7.7	1	2	.....

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1924. Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 61 cities.

<sup>4</sup> Deaths for week ended Friday, May 8, 1925.

• Public Health Reports, Mar. 13, 1925, pp. 483-502. Reprint No. 994.

Deaths from all causes in certain large cities of the United States during the week ended May 9, 1925, infant mortality, annual death rate, and comparison with corresponding week of 1924. (From the Weekly Health Index, May 12, 1925, issued by the Bureau of the Census, Department of Commerce)—Continued

City	Week ended May 9, 1925		Annual death rate per 1,000 corresponding week, 1924	Deaths under 1 year		Infant mortality rate, week ended May 9, 1925
	Total deaths	Death rate		Week ended May 9, 1925	Corresponding week, 1924	
Grand Rapids.....	34	11.8	11.2	5	8	78
Houston.....	64			11	4	
Indianapolis.....	83	12.1	16.2	10	22	69
Jacksonville, Fla.....	34	16.9	29.9	3	9	67
Jersey City.....	83	13.7	13.0	6	13	42
Kansas City, Kans.....	39	16.4	10.7	5	2	105
Kansas City, Mo.....	103	14.6	13.6	14	9	
Los Angeles.....	223			29	34	
Louisville.....	78	15.7	17.8	7	9	81
Lowell.....	35	15.7	14.4	3	4	52
Lynn.....	21	10.5	10.6	4	2	106
Memphis.....	57	17.0	13.9	6	5	
Milwaukee.....	91	9.5	11.8	8	20	37
Minneapolis.....	94	11.5	12.4	14	8	75
Nashville.....	36	15.1	11.0	5	3	
New Bedford.....	35	13.5	10.6	6	4	
New Haven.....	36	10.5	12.7	2	6	100
New Orleans.....	142	17.9	17.2	18	15	26
New York.....	1,486	12.7	13.5	165	216	66
Bronx Borough.....	168	9.7	9.6	16	20	55
Brooklyn Borough.....	506	11.8	12.0	59	56	62
Manhattan Borough.....	637	14.7	16.1	73	108	73
Queens Borough.....	132	12.0	13.7	14	25	69
Richmond Borough.....	43	16.8	20.3	3	9	54
Newark, N. J.....	93	10.7	11.8	19	16	87
Norfolk.....	26	8.0	10.8	1	5	18
Oakland.....	49	10.1	12.7	3	5	35
Oklahoma City.....	17			1	3	
Omaha.....	34	8.4	11.5	4	8	39
Paterson.....	29	10.7	10.0	2	4	34
Philadelphia.....	571	15.0	13.2	69	52	87
Pittsburgh.....	174	14.4	13.3	23	20	81
Portland, Oreg.....	84	15.5	13.9	7	3	72
Providence.....	67	14.3	16.3	13	12	104
Richmond.....	42	11.7	13.1	5	3	61
Rochester.....	89	14.0	13.3	6	13	47
St. Louis.....	205	13.0	13.2	15	11	
St. Paul.....	52	11.0	9.8	6	9	51
Salt Lake City.....	27	10.8	12.6	4	5	63
San Antonio.....	67	17.6	17.7	10	14	
San Francisco.....	138	12.9	12.6	7	14	40
Schenectady.....	27	13.8	14.5	3	3	85
Seattle.....	80			3	8	31
Somerville.....	26	13.3	11.4	2	2	54
Spokane.....	24			1	4	22
Springfield, Mass.....	26	8.9	13.7	2	7	30
Syracuse.....	59	16.1	13.6	9	4	113
Tacoma.....	19	9.5	11.1	1	2	24
Toledo.....	67	12.2	12.5	4	8	36
Trenton.....	49	19.4	18.1	7	10	114
Utica.....	32	15.6		3		62
Washington, D. C.....	125	13.1	13.5	13	9	73
Waterbury.....	24			4	5	88
Wilmington, Del.....	29	12.4	9.6	3	3	68
Worcester.....	56	14.7	13.1	6	5	69
Yonkers.....	28	13.1	9.0	7	2	154
Youngstown.....	29	9.5	9.4	3	9	38

\* Deaths for week ended Friday, May 8, 1925.

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

Reports for Week Ended May 16, 1925

ARIZONA		Cases	CONNECTICUT		Cases
Chicken pox.....		5	Chicken pox.....		53
Diphtheria.....		2	Conjunctivitis (infectious).....		3
Measles.....		54	Diphtheria.....		35
Mumps.....		2	German measles.....		77
Scarlet fever.....		7	Influenza.....		6
Smallpox.....		2	Measles.....		307
Trachoma.....		1	Mumps.....		11
Tuberculosis.....		13	Paratyphoid fever.....		1
Typhoid fever.....		4	Pneumonia (all forms).....		55
Whooping cough.....		5	Scarlet fever.....		110
			Septic sore throat.....		2
ARKANSAS			Smallpox.....		2
Chicken pox.....		20	Tuberculosis (all forms).....		37
Diphtheria.....		1	Typhoid fever.....		3
Hookworm disease.....		1	Whooping cough.....		103
Influenza.....		45			
Malaria.....		58	DELAWARE		
Measles.....		13	Chicken pox.....		1
Mumps.....		35	Diphtheria.....		2
Paratyphoid fever.....		1	Influenza.....		1
Pellagra.....		16	Measles.....		6
Scarlet fever.....		4	Mumps.....		5
Smallpox.....		4	Pneumonia.....		1
Trachoma.....		2	Scarlet fever.....		4
Tuberculosis.....		19	Smallpox.....		3
Typhoid fever.....		9	Tuberculosis.....		5
Whooping cough.....		4	Whooping cough.....		1
COLORADO			FLORIDA		
(Exclusive of Denver)			Chicken pox.....		22
Chicken pox.....		5	Diphtheria.....		9
Diphtheria.....		8	Lethargic encephalitis.....		1
Influenza.....		5	Malaria.....		16
Mumps.....		17	Measles.....		5
Pneumonia.....		7	Mumps.....		134
Scarlet fever.....		13	Paratyphoid fever.....		1
Tuberculosis.....		37	Scarlet fever.....		5
Typhoid fever.....		3	Smallpox.....		3
Vincent's angina.....		1	Tetanus.....		4
Whooping cough.....		7	Tuberculosis.....		95
			Typhoid fever.....		9
			Whooping cough.....		41



MONTANA—continued		Cases	TEXAS—continued		Cases
Smallpox.....		2	Pellagra.....		4
Tuberculosis.....		5	Pneumonia.....		3
Tularaemia—Miles City.....		1	Scarlet fever.....		16
Typhoid fever.....		2	Smallpox.....		83
Whooping cough.....		7	Trachoma.....		1
NEW JERSEY			Tuberculosis.....		14
Anthrax.....		1	Typhoid fever.....		11
Cerebrospinal meningitis.....		1	Whooping cough.....		9
Chicken pox.....		141	VERMONT		
Diphtheria.....		72	Chicken pox.....		11
Influenza.....		20	Diphtheria.....		1
Measles.....		498	Measles.....		8
Pneumonia.....		136	Mumps.....		39
Scarlet fever.....		293	Scarlet fever.....		5
Smallpox.....		10	Whooping cough.....		13
Typhoid fever.....		5	VIRGINIA		
Whooping cough.....		220	Smallpox:		
NORTH CAROLINA			Accomac County.....		1
Cerebrospinal meningitis.....		1	Charlotte County.....		1
Chicken pox.....		75	WASHINGTON		
Diphtheria.....		33	Cerebrospinal meningitis:		
German measles.....		15	Spokane.....		1
Measles.....		29	Tacoma.....		1
Scarlet fever.....		32	Chicken pox.....		76
Septic sore throat.....		2	Diphtheria.....		13
Smallpox.....		52	German measles.....		45
Typhoid fever.....		4	Measles.....		4
Whooping cough.....		110	Mumps.....		113
OREGON			Scarlet fever.....		22
Cerebrospinal meningitis.....		3	Smallpox.....		65
Chicken pox.....		26	Tuberculosis.....		15
Diphtheria:			Whooping cough.....		145
Portland.....		18	WEST VIRGINIA		
Scattering.....		6	Diphtheria.....		4
Influenza.....		31	Scarlet fever.....		27
Measles.....		3	Smallpox.....		2
Mumps.....		35	Typhoid fever.....		2
Pneumonia.....		18	WISCONSIN		
Scarlet fever:			Milwaukee:		
Clackamas County.....		10	Cerebrospinal meningitis.....		1
Scattering.....		9	Chicken pox.....		32
Smallpox:			Diphtheria.....		16
Portland.....		10	German measles.....		80
Scattering.....		12	Measles.....		200
Tuberculosis.....		13	Mumps.....		59
Typhoid fever.....		4	Pneumonia.....		20
Whooping cough.....		34	Scarlet fever.....		17
SOUTH DAKOTA			Smallpox.....		57
Chicken pox.....		1	Tuberculosis.....		23
Diphtheria.....		1	Typhoid fever.....		1
Measles.....		1	Whooping cough.....		30
Mumps.....		2	Scattering:		
Pneumonia.....		1	Chicken pox.....		93
Rocky Mountain spotted fever.....		1	Diphtheria.....		36
Scarlet fever.....		24	German measles.....		248
Trachoma.....		1	Influenza.....		190
Tuberculosis.....		1	Measles.....		193
Whooping cough.....		3	Mumps.....		84
TEXAS			Pneumonia.....		24
Chicken pox.....		16	Scarlet fever.....		121
Diphtheria.....		24	Smallpox.....		21
Dysentery (epidemic).....		15	Tuberculosis.....		13
Influenza.....		11	Typhoid fever.....		2
Measles.....		23	Whooping cough.....		95
Mumps.....		56			

<sup>1</sup> Deaths.

## Reports for Week Ended May 9, 1925

DISTRICT OF COLUMBIA	Cases	NORTH DAKOTA—continued	Cases
Chicken pox.....	15	Pneumonia.....	7
Diphtheria.....	26	Scarlet fever.....	30
Influenza.....	2	Trachoma.....	1
Measles.....	39	Tuberculosis.....	3
Pneumonia.....	24	Typhoid fever.....	1
Scarlet fever.....	21	Whooping cough.....	5
Smallpox.....	1		
Tuberculosis.....	24		
Typhoid fever.....	2		
Whooping cough.....	9		
		VERMONT	
		Chicken pox.....	29
		Diphtheria.....	5
		Measles.....	6
		Mumps.....	63
		Pneumonia.....	3
		Scarlet fever.....	10
		Whooping cough.....	4
		WYOMING	
		Chicken pox.....	3
		Diphtheria.....	3
		Influenza.....	2
		Measles.....	9
		Mumps.....	12
		Pneumonia.....	1
		Rocky Mountain spotted fever.....	1
		Scarlet fever.....	4
		Tuberculosis.....	1
		Whooping cough.....	36

## NEBRASKA

Chicken pox.....	13
Diphtheria.....	4
Measles.....	2
Mumps.....	17
Scarlet fever.....	17
Smallpox.....	17
Whooping cough.....	19

## NORTH DAKOTA

Chicken pox.....	5
Diphtheria.....	4
German measles.....	9
Influenza.....	5
Measles.....	2
Mumps.....	2

## SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week.

State	Cerebro-spinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Polio-myelitis	Scarlet fever	Smallpox	Typhoid fever
<i>March, 1925</i>										
Colorado.....		64	58		8			173	1	7
Utah.....	4	46	722		12			51	2	
<i>April, 1925</i>										
Alabama.....	12	24	664	121	90	92	2	104	497	48
Arkansas.....	1	13	644	224	104	62	0	19	38	27
Delaware.....		8	4	3	37			17	1	1
Florida.....	2	33	65	62	24	12	2	25	32	76
Indiana.....	2	119	850				1	856		25
Massachusetts.....	16	394	182	2	3,846	1	2	1,148	1	42
New York.....	15	1,576	798	5	3,258		11	2,898	14	142
North Carolina.....	1	90			97		2	107	350	10



**Number of Cases of Certain Communicable Diseases Reported for the Month of March, 1925, by State Health Officers**

State	Chick- en pox	Diph- theria	Mea- sles	Mumps	Scarlet fever	Small- pox	Tuber- culosis	Ty- phoid fever	Whoop- ing cough
Alabama.....	186	54	138	210	114	672	279	56	48
Arizona.....	49	14	291	28	43	4	91	2	17
Arkansas.....	115	19	146	155	30	31	56	46	104
California.....	1,676	560	387	1,203	689	663	700	38	1,359
Colorado.....	242	64	8	543	173	1	134	7	57
Connecticut.....	245	206	632	273	637		143	12	292
Delaware.....	1	10	7	13	23		<sup>1</sup> 16		7
District of Columbia.....	97	50	124		132	7	107	6	64
Florida.....	49	39	30	289	16	22	123	39	58
Georgia.....	192	64	113	292	25	48	85	21	258
Idaho.....		5			27			6	
Illinois.....	1,108	439	4,615	1,537	2,384	220	1,143	62	1,121
Indiana.....		118			951			21	
Iowa.....	106	41	16	60	132	40	3	(5)	9
Kansas.....	467	114	47	2,018	596	44	230	10	160
Kentucky <sup>1</sup> .....									
Louisiana.....	82	78	5	10	83	141	<sup>1</sup> 155	47	42
Maine.....	163	24	50	670	162		46	11	15
Maryland.....	359	137	159	374	330	2	262	27	477
Massachusetts.....	821	429	2,747	420	1,458		784	42	700
Michigan.....	688	340	782	436	1,717	80	406	37	364
Minnesota.....	578	313	176		1,104	117	315	26	73
Mississippi.....	982	71	788	2,388	21	155	363	91	888
Missouri.....	273	305	59	453	1,226	75	229	23	112
Montana.....	48	45	139	104	125	36	59	3	28
Nebraska.....		30			73			3	
New Hampshire <sup>1</sup> .....									
New Jersey.....	620	393	1,057		1,303	41	468	46	1,310
New Mexico.....	93	40	229	99	44	8	132	3	29
New York.....	2,030	1,462	2,640	1,546	3,155	34	1,942	95	1,547
North Carolina.....	565	130	276		100	250		12	493
North Dakota.....	52	17	9	50	273	36	11	3	44
Ohio.....	1,290	406	959	864	2,338	576	632	46	689
Oklahoma.....	143		85	201		176	<sup>1</sup> 145	43	179
Oregon.....	99	115	20	148	100	96	74	9	59
Pennsylvania.....	1,936	998	5,524	3,276	3,087	30	526	88	1,197
Rhode Island.....		39			118	1		2	
South Carolina.....	37	254	1	62	6	54	<sup>1</sup> 9	1	44
South Dakota.....	33	32	10	11	213	47	7	9	12
Tennessee <sup>1</sup> .....									
Texas <sup>1</sup> .....									
Utah.....	363	46	12	296	51	2	<sup>1</sup> 12		310
Vermont.....	207	8	51	392	100		<sup>1</sup> 10	5	100
Virginia.....	609	113	644		191	22	<sup>1</sup> 224	40	1,004
Washington.....	475	199	39	656	175	198	182	25	320
West Virginia.....	154	62	177		199	104	49	40	176
Wisconsin.....	783	170	2,601	1,550	600	197	106	6	383
Wyoming.....	56	1	30	33	29	6	<sup>1</sup> 1	32	10

<sup>1</sup> Pulmonary.<sup>2</sup> Reports not required by law.<sup>3</sup> Reports received weekly.<sup>4</sup> Reports received annually.<sup>5</sup> Reports not received at time of going to press.

## Case Rates per 1,000 Population (Annual Basis) for the Month of March, 1925

State	Chick- en pox	Diph- theria	Meas- les	Mumps	Scarlet fever	Small- pox	Tuber- culosis	Ty- phoid fever	Whoop- ing cough
Alabama.....	0.89	0.26	0.66	1.00	0.54	3.21	1.33	0.27	0.23
Arizona.....	1.42	.40	8.40	.81	1.24	.12	2.63	.06	.49
Arkansas.....	.73	.12	.93	.98	.19	.20	.36	.29	.66
California.....	4.91	1.64	1.13	3.52	2.02	1.91	2.05	.11	3.98
Colorado.....	2.80	.74	.09	6.27	2.00	.01	1.55	.08	.66
Connecticut.....	1.88	1.58	4.86	2.10	4.90		1.10	.09	2.25
Delaware.....	.05	.50	.35	.65	1.15		1.80		.35
District of Columbia.....	2.29	1.18	2.93		3.12	.17	2.53	.14	1.51
Florida.....	.53	.42	.32	3.12	.17	.24	1.33	.42	.63
Georgia.....	.74	.25	.44	1.12	.10	.18	1.33	.08	.99
Idaho.....		.12			.65			.14	
Illinois.....	1.97	.74	7.80	2.60	4.03	.37	1.93	.10	1.89
Indiana.....		.45			3.66			.08	
Iowa.....	.50	.19	.08	.28	.62	.19	.01	(?)	.04
Kansas.....	3.03	.74	.31	13.10	3.87	.29	1.49	.06	1.04
Kentucky <sup>1</sup> .....									
Louisiana.....	.51	.49	.03	.06	.52	.88	1.97	.29	.26
Maine.....	2.45	.36	.75	10.08	2.44		.69	.17	.23
Maryland.....	2.75	1.05	1.22	2.86	2.57	.02	2.01	.21	3.65
Massachusetts.....	2.34	1.22	7.84	1.20	4.16		2.24	.12	2.00
Michigan.....	1.95	.96	2.22	1.24	4.87	.23	1.15	.10	1.03
Minnesota.....	2.65	1.44	.81		5.07	.54	1.45	.12	.34
Mississippi.....	6.46	.47	5.18	15.70	.14	1.02	2.39	.60	5.84
Missouri.....	.93	1.04	.20	1.54	4.16	.25	.78	.08	.38
Montana.....	.87	.82	2.53	1.99	2.28	.60	1.07	.05	.51
Nebraska.....		.36			.63			.03	
New Hampshire <sup>1</sup> .....									
New Jersey.....	2.08	1.32	3.55		4.38	.14	1.57	.15	4.40
New Mexico.....	2.89	1.24	7.11	3.07	1.37	.25	4.10	.09	.90
New York.....	2.15	1.49	2.80	1.64	3.34	.04	2.06	.10	1.64
North Carolina.....	2.41	.55	1.18		.43	1.07		.05	2.10
North Dakota.....	.89	.29	.15	.86	4.68	.62	.19	.05	.75
Ohio.....	2.40	.76	1.79	1.61	4.36	1.07	1.27	.09	1.28
Oklahoma.....	.75		.45	1.06		.93	1.76	.23	.94
Oregon.....	1.38	1.60	.28	2.06	1.39	1.34	1.03	.13	.82
Pennsylvania.....	2.45	1.26	6.98	4.14	3.90	.04	.66	.11	1.51
Rhode Island.....		.72			2.17	.02		.04	
South Carolina.....	.24	1.68	.01	.41	.04	.36	1.06	.01	.29
South Dakota.....	.58	.57	.18	.19	3.76	.83	.12	.16	.21
Tennessee <sup>1</sup> .....									
Texas <sup>1</sup> .....									
Utah.....	8.68	1.10	.29	7.08	1.22	.05	1.29		7.41
Vermont.....	6.92	.27	1.70	13.10	3.34		1.33	.17	3.34
Virginia.....	2.93	.54	3.10		.92	.11	1.06	.19	4.83
Washington.....	3.78	1.59	.31	5.23	1.39	1.58	1.45	.20	2.55
West Virginia.....	1.13	.46	1.30		1.46	.76	.36	.29	1.29
Wisconsin.....	3.29	.71	10.93	6.52	2.62	.83	.45	.03	1.61
Wyoming.....	2.97	.05	1.59	1.75	1.54	.32	1.05	1.70	.53

<sup>1</sup> Pulmonary.<sup>2</sup> Reports not required by law.<sup>3</sup> Reports received weekly.<sup>4</sup> Reports received annually.<sup>5</sup> Reports not received at time of going to press.

## PLAGUE-ERADICATIVE MEASURES IN THE UNITED STATES

The following items were taken from the reports of plague-eradica-  
tive measures from the cities named for the week ended May 2, 1925:

*Los Angeles, Calif.*

Week ended May 2, 1925:

Number of rats examined.....	4,529
Number of rats found to be plague infected.....	2
Number of squirrels examined.....	1,297
Number of squirrels found to be plague infected.....	0

Totals, Nov. 5, 1924, to May 2, 1925:

Number of rats examined.....	95,403
Number of rats found to be plague infected.....	182
Number of squirrels examined.....	11,219
Number of squirrels found to be plague infected.....	9

Date of discovery of last plague-infected rodent, May 12, 1925.

Date of last human case, Jan. 15, 1925.

*Oakland, Calif.*

(Including other East Bay communities)

**Week ended May 2, 1925:**

Number of rats trapped.....	1, 862
Number of rats found to be plague infected.....	0

**Totals, Jan. 1 to May 2, 1925:**

Number of rats trapped.....	42, 155
Number of rats found to be plague infected.....	21

Date of discovery of last plague-infected rat, Mar. 4, 1925.

Date of last human case, Sept. 10, 1919.

*New Orleans, La.***Week ended May 2, 1925:**

Number of vessels inspected.....	337
Number of inspections made.....	1, 057

Number of vessels fumigated with cyanide gas.....	31
---	----

Number of rodents examined for plague.....	5, 401
--	--------

Number of rodents found to be plague infected.....	0
--	---

**Totals, Dec. 5, 1924, to May 2, 1925:**

Number of rodents examined for plague.....	91, 020
--	---------

Number of rodents found to be plague infected.....	12
--	----

Date of discovery of last plague-infected rat, Jan. 17, 1925.

Date of last human case occurring in New Orleans, Aug. 20, 1920.

**GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES**

*Diphtheria.*—For the week ended May 2, 1925, 35 States reported 1,283 cases of diphtheria. For the week ended May 3, 1924, the same States reported 1,555 cases of this disease. One hundred and two cities, situated in all parts of the country and having an aggregate population of nearly 28,700,000, reported 863 cases of diphtheria for the week ended May 2, 1925. Last year, for the corresponding week they reported 902 cases. The estimated expectancy for these cities was 924 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles.*—Thirty-two States reported 5,246 cases of measles for the week ended May 2, 1925, and 13,322 cases of this disease for the week ended May 3, 1924. One hundred and two cities reported 3,207 cases of measles for the week this year, and 4,680 cases last year.

*Scarlet fever.*—Scarlet fever was reported for the week as follows: 35 States—this year, 3,168 cases; last year, 3,278; 102 cities—this year, 1,701; last year, 1,551; estimated expectancy, 1,018 cases.

*Smallpox.*—For the week ended May 2, 1925, 35 States reported 846 cases of smallpox. Last year, for the corresponding week, they reported 1,410 cases. One hundred and two cities reported smallpox for the week as follows: 1925, 278 cases; 1924, 542 cases; estimated expectancy, 104 cases. These cities reported 20 deaths from smallpox for the week this year.

**Typhoid fever.**—Two hundred and fifty-nine cases of typhoid fever were reported for the week ended May 2, 1925, by 34 States. For the corresponding week of 1924 the same States reported 229 cases. One hundred and two cities reported 98 cases of typhoid fever for the week this year, and 48 cases for the corresponding week last year. The estimated expectancy for these cities was 63 cases.

**Influenza and pneumonia.**—Deaths from influenza and pneumonia (combined) were reported for the week by 102 cities as follows: 1925, 1,010 deaths; 1924, 984 deaths.

*City reports for week ended May 2, 1925*

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics, or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1915 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1923, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND									
Maine:									
Portland.....	73,129	7	1	1	1	0	2	19	2
New Hampshire:									
Concord.....	22,408	0	0	0	0	0	1	0	1
Manchester.....	81,383	0	2	0	0	0	6	0	1
Vermont:									
Barre.....	10,608	2	0	1	0	0	0	2	1
Burlington.....	23,613	0	1	3	0	0	11	11	0
Massachusetts:									
Boston.....	770,400		56	24	5	2	302		24
Fall River.....	120,912	2	3	4	4	2	2	0	1
Springfield.....	144,227	3	3	0	2	2	29	3	4
Worcester.....	191,927	11	4	3	0	0	19	0	8
Rhode Island:									
Pawtucket.....	68,799		1	0	0	0	0		1
Providence.....	242,378	0	11	5		1	1	0	4
Connecticut:									
Bridgeport.....	143,555	1	5	5	1	1	1	0	4
Hartford.....	138,036		6						
New Haven.....	172,967	5	4	0	0	0	45	1	6
MIDDLE ATLANTIC									
New York:									
Buffalo.....	536,718	8	11	1	1	1	199	3	21
New York.....	5,927,625	162	250	271	47	19	139	71	243
Rochester.....	317,867	5	4	20		1	45	23	0
Syracuse.....	184,511	12	7	3		1	15	11	4
New Jersey:									
Camden.....	124,157	1	3	5	0	0	90	0	3
Newark.....	438,699	34	17	6	4	0	60	13	21
Trenton.....	127,390	2	4	3	0	0	3	0	1
Pennsylvania:									
Philadelphia.....	1,922,788	62	67	101		5	328	15	57
Pittsburgh.....	613,442	35	17	6		1	386	9	51
Reading.....	110,917	8	3	4	0	0	185	3	1
Scranton.....	140,636	2	3	0	0	0	0	0	21

<sup>1</sup> Population Jan. 1, 1920.

## City reports for week ended May 2, 1925—Continued

Division, State, and city	Population July 1, 1923, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	406,312	7	8	6	—	7	4	5	1
Cleveland.....	888,519	95	21	25	4	3	12	15	2
Columbus.....	261,082	5	4	1	—	2	1	0	2
Toledo.....	268,338	20	3	5	—	3	111	1	6
Indiana:									
Fort Wayne.....	93,573	10	2	2	—	4	9	0	0
Indianapolis.....	342,718	10	5	0	—	4	8	3	14
South Bend.....	76,709	1	1	0	0	0	6	0	0
Terre Haute.....	68,939	3	1	0	0	0	13	0	1
Illinois:									
Chicago.....	2,586,121	55	100	64	27	5	680	14	78
Cicero.....	55,968	—	2	—	—	—	—	—	—
Springfield.....	61,833	9	1	0	5	1	20	50	1
Michigan:									
Detroit.....	995,668	44	50	29	4	3	13	15	33
Flint.....	117,968	0	3	5	0	0	14	1	4
Grand Rapids.....	145,947	4	4	0	—	1	49	0	4
Wisconsin:									
Madison.....	42,519	4	0	0	0	—	3	20	—
Milwaukee.....	484,895	34	12	9	0	0	176	77	19
Racine.....	64,303	17	1	6	0	0	6	8	1
Superior.....	139,671	0	1	0	0	0	0	0	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	106,289	1	2	0	—	1	0	0	3
Minneapolis.....	409,125	31	15	19	0	0	8	5	6
St. Paul.....	241,891	35	13	19	—	5	7	23	0
Iowa:									
Davenport.....	61,262	0	1	0	0	—	0	0	—
Des Moines.....	140,623	0	3	0	0	—	0	0	—
Sioux City.....	79,662	4	1	0	0	—	1	17	—
Waterloo.....	39,667	19	0	0	0	—	0	1	—
Missouri:									
Kansas City.....	351,819	4	7	2	4	4	2	23	8
St. Joseph.....	78,232	1	2	0	1	1	1	3	2
St. Louis.....	803,853	32	38	49	1	2	14	8	—
North Dakota:									
Fargo.....	24,841	3	0	0	—	1	1	8	—
Grand Forks.....	14,547	1	0	2	0	—	0	0	—
South Dakota:									
Aberdeen.....	15,820	1	—	0	0	—	0	0	—
Sioux Falls.....	29,206	2	1	0	0	0	0	0	0
Nebraska:									
Lincoln.....	58,761	13	2	2	0	0	0	1	2
Omaha.....	204,382	5	4	4	0	0	1	0	5
Kansas:									
Topeka.....	52,555	0	1	0	0	0	3	37	1
Wichita.....	79,291	6	1	2	0	0	0	1	2
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	117,728	5	1	5	0	0	5	1	4
Maryland:									
Baltimore.....	773,580	80	20	28	27	5	11	65	36
Cumberland.....	32,861	0	1	0	2	0	0	0	0
Frederick.....	11,391	1	0	0	0	0	1	0	1
District of Columbia:									
Washington.....	1437,871	21	10	11	1	2	55	—	17
Virginia:									
Lynchburg.....	30,277	2	0	0	0	0	0	17	2
Norfolk.....	159,089	17	1	0	0	0	4	74	2
Richmond.....	181,044	22	2	0	—	1	21	5	4
Roanoke.....	55,502	8	1	2	0	0	8	0	0
West Virginia:									
Charleston.....	45,597	2	0	1	—	1	37	7	3
Wheeling.....	156,208	7	1	0	—	1	5	0	4
North Carolina:									
Raleigh.....	29,171	8	0	0	0	0	0	0	0
Wilmington.....	35,719	2	0	0	0	0	0	8	1
Winston-Salem.....	86,236	0	1	0	0	0	3	4	3

Population Jan. 1, 1920.

## City reports for week ended May 2, 1925—Continued

Division, State, and city	Population July 1, 1923, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
SOUTH ATLANTIC—CON.									
South Carolina:									
Charleston.....	71,245	3	1	0	0	0	0	0	3
Columbia.....	39,688	1	0	1	0	0	0	0	0
Greenville.....	25,789	0	1	0	0	0	0	0	0
Georgia:									
Atlanta.....	222,963	9	1	1	2	1	0	2	10
Brunswick.....	15,937	0	0	0	0	0	0	1	1
Savannah.....	89,448	4	0	1	4	2	0	0	1
Florida:									
St. Petersburg.....	24,403	0	0	0	0	0	0	0	2
Tampa.....	56,050	1	1	1	0	0	0	0	2
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	57,877	0	1	0	0	1	0	0	2
Louisville.....	257,671	0	4	0	3	0	4	0	4
Tennessee:									
Memphis.....	170,067	3	3	2		2	5	8	6
Nashville.....	121,128	5	1	2		2	21	1	4
Alabama:									
Birmingham.....	195,901	8	1	1	37	2	5	5	16
Mobile.....	63,858	0	1	2		2	0	0	2
Montgomery.....	45,383	0	0	0	0	0	0	6	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	30,635	0	0	0	0		1	1	
Little Rock.....	70,916	0	0	0	1	0	3	1	2
Louisiana:									
New Orleans.....	404,575	4	7	7	2	2	0	0	6
Shreveport.....	54,590	5		3	0	1	0	0	3
Oklahoma:									
Oklahoma.....	101,150	4	1	1		2	1	0	2
Texas:									
Dallas.....	177,274	23	3	1		1	1	1	7
Galveston.....	46,877	1	0	0	0	0	0	1	1
Houston.....	154,970	0	3	3	0	0	0	0	2
San Antonio.....	184,727	1	1	1		2	1	0	4
MOUNTAIN									
Montana:									
Billings.....	16,927		0						
Great Falls.....	27,787	0	0	1	0	0	1	3	0
Helena.....	<sup>1</sup> 12,037		0	0	0	0	0	0	0
Missoula.....	<sup>1</sup> 12,668	0	0	3	0	0	54	0	1
Idaho:									
Boise.....	22,806	2	1	0	0	0	0	0	0
Colorado:									
Denver.....	272,031	11	10	4		5	1	61	11
Pueblo.....	43,519	2	2	0	0	0	0	9	0
New Mexico:									
Albuquerque.....	16,648	1	2	0	0	0	1	7	1
Utah:									
Salt Lake City.....	126,241	17	3	4	0	0	0	22	1
Nevada:									
Reno.....	12,429	0	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	<sup>1</sup> 315,685	30	4	9	0		1	48	
Spokane.....	104,573	0	2	14	0		0	0	
Tacoma.....	101,731	4	1	2	0	0	0	0	2
Oregon:									
Portland.....	273,621	7	4	19	11	1	2	15	11
California:									
Los Angeles.....	666,853	52	32	22	9	0	45	24	16
Sacramento.....	69,950	5	1	1	1	2	0	0	5
San Francisco.....	539,038	20	23	23	10	1	10	63	8

<sup>1</sup> Population Jan. 1, 1920.



## City reports for week ended May 2, 1925—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland.....	2	6	0	0	0	1	0	1	0	4	20
New Hampshire:											
Concord.....	0	0	0	0	0	0	0	0	0	0	12
Manchester.....	2	6	0	0	0	0	0	0	0	0	6
Vermont:											
Barre.....	1	2	0	0	0	2	0	0	0	0	4
Burlington.....	1	0	0	0	0	0	0	0	0	0	1
Massachusetts:											
Boston.....	53	63	0	0	0	18	2	1	1	6	235
Fall River.....	4	10	0	0	0	5	1	0	1	1	36
Springfield.....	6	22	0	0	0	1	0	0	0	17	39
Worcester.....	7	14	0	0	0	2	0	0	0	6	62
Rhode Island:											
Fawtucket.....	1	1	0	0	0	1	0	0	0	0	16
Providence.....	10	10	0	0	0	5	0	1	0	0	60
Connecticut:											
Bridgeport.....	5	25	0	0	0	4	0	0	0	0	29
Hartford.....	4	7	0	0	0	2	0	1	0	43	39
New Haven.....	7	14	0	0	0	2	1	1	0	0	0
MIDDLE ATLANTIC											
New York:											
Buffalo.....	18	18	0	0	0	10	0	3	0	21	151
New York.....	216	318	1	0	0	105	12	33	2	133	1,578
Rochester.....	14	40	0	0	0	2	0	0	0	2	76
Syracuse.....	13	2	0	0	0	3	0	0	0	4	51
New Jersey:											
Camden.....	2	18	0	3	2	2	1	0	0	3	32
Newark.....	22	27	0	0	0	4	1	2	0	32	94
Trenton.....	4	2	0	0	0	2	0	0	0	3	32
Pennsylvania:											
Philadelphia.....	72	130	1	11	4	55	4	5	1	40	521
Pittsburgh.....	21	66	0	1	0	14	1	0	2	4	221
Reading.....	3	17	0	0	0	1	0	0	0	5	22
Seranton.....	2	1	0	0	0	2	0	0	0	2	0
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	12	14	2	0	0	11	1	0	0	1	126
Cleveland.....	22	29	1	0	0	13	2	0	1	38	205
Columbus.....	6	6	1	6	0	5	0	0	0	7	59
Toledo.....	16	16	3	0	0	6	1	0	0	15	66
Indiana:											
Fort Wayne.....	2	7	2	0	0	1	0	0	0	3	109
Indianapolis.....	16	5	4	1	0	11	0	0	0	13	17
South Bend.....	3	7	0	1	0	2	1	0	0	1	26
Terre Haute.....	2	4	1	1	0	2	0	0	0	0	0
Illinois:											
Chicago.....	72	181	2	0	2	46	2	4	0	101	725
Cicero.....	1	1	0	0	0	0	0	0	0	3	15
Springfield.....	2	3	0	0	0	0	0	0	0	0	0
Michigan:											
Detroit.....	78	80	7	0	0	34	3	1	0	132	281
Flint.....	6	8	1	0	0	0	1	0	0	11	13
Grand Rapids.....	7	45	1	1	0	0	0	0	0	5	27
Wisconsin:											
Madison.....	3	0	1	0	0	1	1	0	0	10	120
Milwaukee.....	31	19	1	30	2	5	1	0	0	19	10
Racine.....	5	3	0	1	0	0	0	0	0	0	10
Superior.....	2	14	1	0	0	0	1	0	0	0	10
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	4	11	1	0	0	2	1	0	0	0	26
Minneapolis.....	27	78	7	2	3	3	1	2	0	5	91
St. Paul.....	19	36	6	3	1	6	0	1	0	12	74

\* Pulmonary tuberculosis only.

## City reports for week ended May 2, 1925—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST NORTH CENTRAL—continued											
Iowa:											
Davenport	2	1	4	0			0	0		1	
Des Moines	11	3	3	2			0	0		0	
Sioux City	3	1	1	0			0	0		0	
Waterloo	2	0	0	4			0	0		9	
Missouri:											
Kansas City	11	35	3	3	0	7	1	1	0	11	85
St. Joseph	2	0	0	0	0	0	0	0	0	1	32
St. Louis	33	79	2	11	0	10	1	2	0	5	230
North Dakota:											
Fargo	1	5	0	0	0	0	0	0	0	4	8
Grand Forks	1	0	0	0			0	0		0	
South Dakota:											
Aberdeen		0		0				0		4	
Sioux Falls	1	1	1	0	0	0	0	0	0	0	13
Nebraska:											
Lincoln	3	3	1	3	0	1	0	0	0	6	14
Omaha	4	0	2	13	0	6	0	0	0	2	82
Kansas:											
Topeka	2	4	2	0	0	0	0	0	0	0	9
Wichita	2	0	3	0	0	0	0	0	0	17	18
SOUTH ATLANTIC											
Delaware:											
Wilmington	3	3	0	0	0	6	0	0	0	1	27
Maryland:											
Baltimore	27	32	1	1	0	29	2	2	0	96	237
Cumberland	1	0	0	0	0	0	0	0	0	0	7
Frederick	2	0	0	0	0	0	1	0	0	0	5
District of Colum- bia:											
Washington	20	21	1	2	3	11	1	3	0	23	141
Virginia:											
Lynchburg	0	0	1	0	0	1	0	0	0	5	14
Norfolk	1	0	0	1	0	2	1	0	0	39	
Richmond	2	0	0	0	0	1	1	2	0	4	53
Roanoke	1	2	1	1	0	2	0	1	0	1	17
West Virginia:											
Charleston	1	0	1	4	0	1	0	0	0	5	18
Wheeling	2	4	0	0	0	1	0	1	0	1	12
North Carolina:											
Raleigh	0	0	1	0	0	2	0	0	0	0	12
Wilmington	0	0	1	5	0	0	0	0	0	0	8
Winston-Salem	1	0	3	8	0	2	0	0	0	10	15
South Carolina:											
Charleston	0	0	0	0	0	2	0	1	0	4	22
Columbia	0	0	1	0	0	1	0	0	0	2	
Greenville	1	0	0	8	0	0	0	2	0	1	2
Georgia:											
Atlanta	3	1	4	1	0	5	1	1	0	5	68
Brunswick	0	0	0	0	0	0	0	0	0	0	4
Savannah	1	1	0	0	0	4	0	0	0	4	26
Florida:											
St. Petersburg	2	0	0	0	0	0	1	0	0	0	8
Tampa	0	1	0	0	0	2	1	1	0	0	25
EAST SOUTH CENTRAL											
Kentucky:											
Covington	1	2	0	0	0	0	0	0	0	3	19
Louisville	4	9	1	4	0	9	1	1	0	6	67
Tennessee:											
Memphis	4	6	2	6	0	12	1	1	0	15	63
Nashville	1	6	1	5	0	3	1	0	0	1	46
Alabama:											
Birmingham	1	22	0	61	1	11	1	3	0	4	78
Mobile	0	1	1	0	0	1	0	1	0	0	16
Montgomery	1	0	1	0	0	0	0	2	2	0	15

## City reports for week ended May 2, 1925—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	1	0	1	0			0	0		0	
Little Rock.....	0	1	0	0	0	0	1	0	0	5	
Louisiana:											
New Orleans.....	3	16	3	0	0	13	2	9	1	13	137
Shreveport.....		0		1	0	1		0	0	0	26
Oklahoma:											
Oklahoma.....	2	1	5	0	0	1	0	1	1	0	15
Texas:											
Dallas.....	2	1	3	1	0	3	0	1	0	5	50
Galveston.....	0	1	0	0	0	3	0	0	0	0	13
Houston.....	1	4	1	5	0	3	1	1	0	0	62
San Antonio.....	1	1	0	0	0	6	1	0	0	0	
MOUNTAIN											
Montana:											
Billings.....	1		0				0				
Great Falls.....	0	17	2	1	0	1	0	0	0	0	6
Helena.....	0	4	0	0	0	1	0	0	0		5
Missoula.....	1	4	1	0	0	0	0	0	0	0	3
Idaho:											
Boise.....	1	0	0	0	0	0	0	0	0	1	8
Colorado:											
Denver.....	11	8	2	0	0	7	0	0	0	3	86
Pueblo.....	1	0	0	0	0	0	1	0	0	2	6
New Mexico:											
Albuquerque.....	0	0	0	0	0	2	0	0	0	0	8
Utah:											
Salt Lake City.....	3	1	1	0	0	2	0	0	0	3	29
Nevada:											
Reno.....	0	0	0	0	0	0	0	0	0	1	3
PACIFIC											
Washington:											
Seattle.....	7	4	3	18			1	0		109	
Spokane.....	4	0	7	1			0	0		9	
Tacoma.....	2	4	1	7	0	2	0	2	0	4	29
Oregon:											
Portland.....	7	3	4	3	0	4	1	1	0	16	
California:											
Los Angeles.....	14	25	1	42	1	21	2	3	0	59	218
Sacramento.....	2	0	0	1	0	3	0	0	1	11	27
San Francisco.....	16	10	2	2	1	16	1	1	0	70	169

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Polio-myelitis (infantile paralysis)			
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths	
<b>NEW ENGLAND</b>										
Massachusetts:										
Boston.....	1	1	0	0	0	0	0	1	0	
Fall River.....	0	0	1	1	0	0	0	0	0	
Springfield.....	0	0	1	0	0	0	0	0	0	
<b>MIDDLE ATLANTIC</b>										
New York:										
New York.....	0	2	9	2	0	0	1	0	0	
New Jersey:										
Camden.....	0	0	1	1	0	0	0	0	0	
Pennsylvania:										
Philadelphia.....	0	0	0	1	0	0	0	0	0	

## City reports for week ended May 2, 1925—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
<b>EAST NORTH CENTRAL</b>									
Ohio:									
Cleveland.....	1	0	1	0	0	0	0	0	0
Indiana:									
Terre Haute.....	1	0	0	0	0	0	0	0	0
Illinois:									
Chicago.....	1	1	1	1	0	0	0	2	1
Springfield.....	0	0	0	0	1	1	0	0	0
Michigan:									
Detroit.....	1	0	0	0	0	0	0	0	0
Wisconsin:									
Milwaukee.....	0	0	0	0	0	0	0	1	0
<b>WEST NORTH CENTRAL</b>									
Missouri:									
St. Louis.....	2	0	0	0	0	0	0	0	0
Nebraska:									
Omaha.....	0	0	0	1	0	0	0	0	0
<b>SOUTH ATLANTIC</b>									
Maryland:									
Baltimore.....	0	0	1	0	0	0	0	1	0
North Carolina:									
Winston-Salem.....	0	0	0	0	2	0	0	0	0
South Carolina:									
Columbia.....	0	0	0	0	0	1	0	0	0
<b>EAST SOUTH CENTRAL</b>									
Alabama:									
Birmingham.....	0	0	0	0	2	0	0	0	0
Mobile.....	0	0	0	0	0	1	0	0	0
<b>WEST NORTH CENTRAL</b>									
Arkansas:									
Little Rock.....	0	0	0	0	0	1	0	0	0
Louisiana:									
Shreveport.....	0	0	0	0	0	1		0	0
Texas:									
Dallas.....	0	0	0	0	1	0	0	0	0
Houston.....	0	0	0	1	1	0	0	0	0
<b>PACIFIC</b>									
Washington:									
Spokane.....	1		0		0		0	0	
Oregon:									
Portland.....	2	3	0	0	0	0	0	0	0
California:									
Los Angeles.....	0	0	1	0	1	0	0	1	0
San Francisco.....	0	0	1	0	0	0	0	0	0

The following table gives the rates per hundred thousand population for 105 cities for the 10-week period ended May 2, 1925. The population figures used in computing the rates were estimated as of July 1, 1923, as this is the latest date for which estimates are available. The 105 cities reporting cases had an estimated aggregate population of nearly 29,000,000 and the 97 cities reporting deaths had more than 28,000,000 population. The number of cities in-

cluded in each group and the aggregate populations are shown in a separate table below:

*Summary of weekly reports from cities, February 22 to May 2, 1925—Annual rates per 100,000 population*<sup>1</sup>

## DIPHTHERIA CASE RATES

	Week ended—									
	Feb. 28	Mar. 7	Mar. 14	Mar. 21	Mar. 28	Apr. 4	Apr. 11	Apr. 18	Apr. 25	May 2
105 cities.....	<sup>1</sup> 160	162	167	167	<sup>1</sup> 168	177	<sup>1</sup> 158	<sup>1</sup> 161	<sup>1</sup> 162	<sup>1</sup> 157
New England.....	<sup>1</sup> 189	233	176	147	119	171	166	129	144	<sup>1</sup> 114
Middle Atlantic.....	178	167	214	196	231	241	229	224	218	213
East North Central.....	119	114	128	134	112	93	<sup>1</sup> 97	<sup>1</sup> 111	<sup>1</sup> 114	<sup>1</sup> 110
West North Central.....	299	282	201	169	247	220	226	168	<sup>1</sup> 191	201
South Atlantic.....	114	104	91	136	95	81	73	102	108	104
East South Central.....	51	63	40	60	57	23	34	46	40	40
West South Central.....	162	144	158	97	121	83	107	74	79	70
Mountain.....	153	86	105	143	134	124	105	239	<sup>1</sup> 285	<sup>1</sup> 118
Pacific.....	258	235	197	219	<sup>1</sup> 179	374	171	168	165	206

## MEASLES CASE RATES

105 cities.....	<sup>1</sup> 358	418	449	506	<sup>1</sup> 507	558	<sup>1</sup> 539	<sup>1</sup> 585	<sup>1</sup> 645	<sup>1</sup> 583
New England.....	<sup>1</sup> 585	656	542	725	755	957	1,011	917	1,217	<sup>1</sup> 1,069
Middle Atlantic.....	343	423	518	598	633	734	680	815	782	734
East North Central.....	632	789	740	775	798	726	<sup>1</sup> 708	<sup>1</sup> 731	<sup>1</sup> 894	<sup>1</sup> 758
West North Central.....	73	68	75	93	89	77	58	91	<sup>1</sup> 104	79
South Atlantic.....	81	100	146	189	136	209	207	256	295	305
East South Central.....	46	86	11	69	34	69	34	97	189	200
West South Central.....	51	23	88	42	9	88	51	65	37	28
Mountain.....	916	29	763	873	38	219	57	267	<sup>1</sup> 224	<sup>1</sup> 551
Pacific.....	61	107	110	189	<sup>1</sup> 151	209	241	154	203	162

## SCARLET FEVER CASE RATES

105 cities.....	<sup>1</sup> 408	395	432	427	<sup>1</sup> 419	409	<sup>1</sup> 366	<sup>1</sup> 342	<sup>1</sup> 359	<sup>1</sup> 309
New England.....	<sup>1</sup> 558	584	534	544	604	534	529	350	407	<sup>1</sup> 444
Middle Atlantic.....	412	372	439	417	405	436	350	343	336	323
East North Central.....	434	433	497	498	483	442	<sup>1</sup> 419	<sup>1</sup> 404	<sup>1</sup> 431	<sup>1</sup> 324
West North Central.....	734	775	719	792	755	736	647	651	<sup>1</sup> 691	518
South Atlantic.....	203	171	219	146	167	175	152	167	175	132
East South Central.....	183	194	355	286	286	263	280	229	257	263
West South Central.....	144	185	107	134	102	51	88	60	121	111
Mountain.....	315	286	200	429	248	277	258	315	<sup>1</sup> 428	<sup>1</sup> 335
Pacific.....	223	218	229	218	<sup>1</sup> 222	191	174	145	148	125

## SMALLPOX CASE RATES

105 cities.....	<sup>1</sup> 66	62	61	63	<sup>1</sup> 58	57	<sup>1</sup> 51	<sup>1</sup> 48	<sup>1</sup> 62	<sup>1</sup> 51
New England.....	<sup>1</sup> 0	0	0	0	0	12	2	0	2	<sup>1</sup> 0
Middle Atlantic.....	3	1	5	8	7	21	10	18	12	8
East North Central.....	28	42	39	32	33	24	<sup>1</sup> 22	<sup>1</sup> 27	<sup>1</sup> 40	<sup>1</sup> 31
West North Central.....	120	114	124	102	135	87	97	85	<sup>1</sup> 91	75
South Atlantic.....	43	51	59	57	67	49	43	53	79	63
East South Central.....	583	652	446	646	423	42	572	395	457	435
West South Central.....	116	74	74	107	107	46	51	14	42	32
Mountain.....	57	48	95	67	19	19	19	10	<sup>1</sup> 31	<sup>1</sup> 10
Pacific.....	313	206	247	212	<sup>1</sup> 191	255	148	162	264	206

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1923.

<sup>2</sup> Hartford, Conn., not included. Report not received at time of going to press.

<sup>3</sup> Spokane, Wash., not included.

<sup>4</sup> Cicero, Ill., not included.

<sup>5</sup> Cicero, Ill., Fargo, N. Dak., Sioux Falls, S. Dak., Helena, Mont., and Boise, Idaho, not included.

<sup>6</sup> Hartford, Conn., Cicero, Ill., and Billings, Mont., not included.

<sup>7</sup> Fargo, N. Dak., and Sioux Falls, S. Dak., not included.

<sup>8</sup> Helena, Mont., and Boise, Idaho, not included.

<sup>9</sup> Billings, Mont., not included.

*Summary of weekly reports from cities, February 22 to May 2, 1925—Annual rates  
per 100,000 population—Continued*

TYPHOID FEVER CASE RATES

	Week ended—									
	Feb. 28	Mar. 7	Mar. 14	Mar. 21	Mar. 28	Apr. 4	Apr. 11	Apr. 18	Apr. 25	May 2
105 cities.....	<sup>2</sup> 14	11	10	12	<sup>2</sup> 11	9	<sup>4</sup> 10	<sup>4</sup> 12	<sup>2</sup> 16	<sup>2</sup> 18
New England.....	<sup>2</sup> 13	7	5	30	12	5	2	7	17	<sup>2</sup> 11
Middle Atlantic.....	8	10	5	8	7	4	9	11	14	22
East North Central.....	7	11	4	7	3	4	<sup>4</sup> 6	<sup>4</sup> 5	<sup>4</sup> 7	<sup>4</sup> 4
West North Central.....	17	6	10	8	6	2	2	2	<sup>7</sup> 6	12
South Atlantic.....	20	8	24	22	12	30	20	12	14	28
East South Central.....	34	34	34	46	57	17	17	34	80	46
West South Central.....	42	<sup>2</sup> 8	28	23	42	32	37	56	51	51
Mountain.....	76	10	19	0	0	0	19	38	<sup>2</sup> 31	<sup>2</sup> 0
Pacific.....	9	15	15	0	<sup>2</sup> 28	20	9	12	23	17

INFLUENZA DEATH RATES

105 cities.....	<sup>2</sup> 34	30	34	42	33	34	<sup>4</sup> 27	<sup>4</sup> 28	<sup>2</sup> 30	<sup>2</sup> 22
New England.....	<sup>2</sup> 40	17	35	30	30	35	32	27	30	<sup>2</sup> 21
Middle Atlantic.....	20	15	24	29	22	21	16	24	17	14
East North Central.....	24	27	33	49	40	38	<sup>4</sup> 27	<sup>4</sup> 25	<sup>4</sup> 33	<sup>4</sup> 22
West North Central.....	37	35	33	42	46	39	37	50	<sup>7</sup> 49	31
South Atlantic.....	49	53	33	53	12	28	26	12	43	26
East South Central.....	126	103	91	120	86	60	74	80	86	51
West South Central.....	148	143	107	76	36	36	46	36	25	31
Mountain.....	19	19	48	48	38	181	86	38	<sup>2</sup> 82	<sup>2</sup> 49
Pacific.....	29	29	16	12	53	29	12	29	12	12

PNEUMONIA DEATH RATES

105 cities.....	<sup>2</sup> 201	205	222	217	206	204	<sup>4</sup> 202	<sup>4</sup> 195	<sup>2</sup> 204	<sup>2</sup> 167
New England.....	<sup>2</sup> 242	226	229	211	219	251	211	206	186	<sup>2</sup> 140
Middle Atlantic.....	185	210	214	217	199	215	190	204	224	206
East North Central.....	171	195	241	222	214	182	<sup>4</sup> 191	<sup>4</sup> 191	<sup>4</sup> 213	<sup>4</sup> 148
West North Central.....	166	140	175	173	166	193	228	171	<sup>7</sup> 139	72
South Atlantic.....	305	268	246	260	252	234	238	232	191	195
East South Central.....	292	269	366	286	269	269	343	266	286	194
West South Central.....	260	229	178	178	168	168	168	173	158	127
Mountain.....	267	162	210	172	200	162	267	210	<sup>2</sup> 234	<sup>2</sup> 128
Pacific.....	163	139	155	131	159	159	119	98	147	127

*Number of cities included in summary of weekly reports and aggregate population of cities in each group, estimated as of July 1, 1923*

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases	Aggregate population of cities reporting deaths
Total.....	105	97	28,898,350	28,140,934
New England.....	12	12	2,098,746	2,098,746
Middle Atlantic.....	10	10	10,304,114	10,304,114
East North Central.....	17	17	7,032,535	7,032,535
West North Central.....	14	11	2,515,330	2,381,454
South Atlantic.....	22	22	2,566,901	2,566,901
East South Central.....	7	7	911,885	911,885
West South Central.....	8	6	1,124,564	1,023,013
Mountain.....	9	9	546,445	546,445
Pacific.....	6	3	1,797,830	1,275,841

<sup>1</sup> Hartford, Conn., not included. Report not received at time of going to press.

<sup>2</sup> Spokane, Wash., not included.

<sup>3</sup> Cicero, Ill., not included.

<sup>4</sup> Cicero, Ill., Fargo, N. Dak., Sioux Falls, S. Dak., Helena, Mont., and Boise, Idaho, not included.

<sup>5</sup> Hartford, Conn., Cicero, Ill., and Billings, Mont., not included.

<sup>6</sup> Fargo, N. Dak., and Sioux Falls, S. Dak., not included.

<sup>7</sup> Helena, Mont., and Boise, Idaho, not included.

<sup>8</sup> Billings, Mont., not included.



## FOREIGN AND INSULAR

### ECUADOR

*Mortality—Communicable diseases—Quito—March, 1925*—During the month of March, 1925, 169 deaths from all causes were reported at Quito, Ecuador, including diphtheria, 1; dysentery, 3; measles, 5; typhoid fever, 1; tuberculosis, all forms, 9; whooping cough, 6. There were reported 17 deaths from acute bronchitis, 3 from pneumonia, 5 from other diseases of the respiratory organs, exclusive of phthisis pulmonalis, and 5 deaths from organic diseases of the heart. Population, 100,737.

### EGYPT

*Plague—April 9-15, 1925—Summary, January 1-April 15, 1925 (comparative)*—During the week ended April 15, 1925, two cases of plague were reported in Egypt, occurring in two districts. From January 1 to April 15, 1925, there were reported 23 cases of plague as compared with 92 cases reported during the same period of the preceding year.

### FINLAND

*Communicable diseases—March 16-31, 1925*—During the period March 16 to 31, 1925, cases of communicable diseases were reported in Finland as follows: Diphtheria, 65; dysentery, 1; lethargic encephalitis, 3; poliomyelitis, 1; scarlet fever, 81; typhoid fever, 31; paratyphoid, 18. Population, 3,469,402.

### GREECE

*Plague—Patras—April 5, 1925*—A case of plague was reported at Patras, Greece, April 5, 1925.

### INDIA

*Epidemic cholera—Calcutta—May 9, 1925*—Under date of May 9, 1925, epidemic cholera was reported present at Calcutta, India.

### ITALY

*Malta fever—Syracuse Province—April 6-12, 1925*—During the week ended April 12, 1925, a case of Malta fever was reported in the Province of Syracuse, Italy.

## MALTA

*Communicable diseases—April 1-15, 1925.*—During the period April 1 to 15, 1925, communicable diseases were reported in the Island of Malta as follows: Broncho-pneumonia, 9 cases; chicken pox, 4; influenza, 90; pneumonia, 3; lethargic encephalitis, 1 case; Malta (undulant) fever, 9; smallpox, 3; tuberculosis, 9; typhoid fever, 3 cases.

## NEW ZEALAND

*Epidemic poliomyelitis—November, 1924, to March, 1925.*—Information received under date of March 26, 1925, shows that epidemic poliomyelitis (infantile paralysis) was epidemic in New Zealand from about November 25, 1924, through the months of January and February, 1925, with approximately 900 cases (population, 1,334,716). The center of the epidemic prevalence was stated to have moved northward about February 15, from Wellington to the Auckland district, and the disease had appeared in South Island. During the week ended March 2, 1925, 98 cases with 18 deaths were reported.

## PANAMA CANAL

*Communicable diseases—March, 1925.*—During the month of March, 1925, communicable diseases were reported in the Canal Zone and at Colon and Panama as follows:

Disease	Canal Zone		Colon		Panama		Nonresident		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Chicken pox.....	6				29		3		38	
Dysentery.....					3		4	1	7	1
Hookworm disease.....			5		53		45		103	
Leprosy.....			1						1	
Malaria.....	47		1		3		23	1	74	1
Measles.....	17				2		1		20	
Meningitis.....				2						2
Mumps.....	2								2	
Pneumonia <sup>1</sup> .....		1		5		18		2		26
Trachoma.....	2		2						4	
Tuberculosis <sup>1</sup> .....		1		4		13		4		22
Typhoid fever.....							1	1	1	1
Whooping cough.....	7								7	

<sup>1</sup> Many cases are not reported until death occurs.

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER**

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

**Reports Received During Week Ended May 22, 1925<sup>1</sup>****CHOLERA**

Place	Date	Cases	Deaths	Remarks
India				Mar. 8-14, 1925: Cases, 1,953; deaths, 1,145.
Calcutta	Mar. 29-Apr. 4	49	46	Reported to be epidemic May 9, 1925.
Indo-China:				
Saigon	Mar. 15-21	1	1	Including 100 square kilometers of surrounding country.

**PLAGUE**

Egypt				Apr. 9-15, 1925: Cases, 2. Total, Jan. 1-Apr. 15, 1925: Cases, 23; deaths, 13. Corresponding period year 1924: Cases, 92.
Greece:				
Patras	Apr. 5	1		
India				Mar. 8-14, 1925: Cases, 5,800; deaths, 4,848.
Bombay	Mar. 15-21	8	9	
Karachi	Apr. 5-11	1	1	
Madras Presidency	Mar. 8-14	80	46	
Iraq:				
Bagdad	Mar. 22-23	1	1	
Straits Settlements:				
Singapore	Mar. 22-23	3	3	
Union of South Africa:				Mar. 22-28, 1925: 1 case, 1 death.
Kroonstad District	Mar. 22-23	1	1	On farm. Native.

**SMALLPOX**

Arabia:				
Aden	Apr. 12-18	2		
British South Africa:				
Southern Rhodesia	Mar. 19-25	1		Native.
Canada:				
British Columbia—				
Vancouver	Apr. 27-May 3	3		
Ontario—				
Ottawa	May 3-9	2		
China:				
Antung	Mar. 30-Apr. 5	1	1	
Canton	Mar. 29-Apr. 11			Prevalent.
Chefoo	Mar. 15-21			Stated to be prevalent in adults and children; no foreign cases.
Chungking	Mar. 22-Apr. 4			Stated to be widely prevalent; less than in period in year 1924.
Foochow	Mar. 22-28			Present.
Hongkong	do	5	2	
Manchuria—				
Dairen	Mar. 9-15	2		
Chosen:				
Seoul	Mar. 1-31	2		
Colombia:				
Buenaventura	Mar. 29-Apr. 4	1		
Great Britain:				
England and Wales	Apr. 12-18	135		
Greece:				
Saloniki	Feb. 17-Mar. 2	4		
India				Mar. 8-14, 1925: Cases, 5,865; deaths, 1,396.
Bombay	Mar. 15-21	81	46	
Calcutta	Mar. 29-Apr. 4	302	260	
Karachi	Apr. 5-11	2		
Madras	Mar. 29-Apr. 4	96	37	
Indo-China:				
Saigon	Mar. 15-28	25	3	Including 100 square kilometers of surrounding country.
Iraq:				
Bagdad	Mar. 22-28	1		
Japan:				
Nagasaki	Apr. 13-19	10	2	
Malta				Apr. 1-15, 1925: Cases, 3.

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

## **Reports Received During Week Ended May 22, 1925—Continued**

### **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Mexico:				
Durango.....	Apr. 1-30.....	-----	13	
Guadalajara.....	Apr. 28-May 4.....	-----	2	
San Luis Potosi.....	Apr. 25-May 2.....	-----	1	
Tampico.....	Apr. 21-30.....	2	-----	
Persia:				
Teheran.....	Jan. 21-Feb. 18.....	-----	10	
Portugal:				
Lisbon.....	Jan. 4-Mar. 14.....	89	-----	Jan. 4-Apr. 5, 1925: Deaths, 32.
Do.....	Mar. 15-Apr. 25.....	51	-----	Apr. 6-18, 1925: Deaths, 3.
Oporto.....	Apr. 12-25.....	2	-----	
Spain:				
Malaga.....	Apr. 19-25.....	-----	1	
Tunis:				
Tunis.....	Apr. 16-22.....	14	18	
Turkey:				
Constantinople.....	Apr. 1-15.....	3	1	

### **TYPHUS FEVER**

Chosen:				
Seoul.....	Mar. 1-31.....	4	1	
Greece:				
Athens.....	Apr. 1-10.....	-----	3	
Mexico:				
Durango.....	Apr. 1-30.....	-----	1	
San Luis Potosi.....	Apr. 25-May 2.....	-----	1	
Portugal:				
Lisbon.....	Apr. 6-12.....	-----	1	
Tunis:				
Tunis.....	Apr. 16-22.....	6	2	
Union of South Africa:				
Cape Province.....	Mar. 22-28.....	-----	-----	Outbreaks.
Natal—				
Durban.....	do.....	2	-----	
Yugoslavia:				
Belgrade.....	Apr. 8-14.....	2	-----	

## **Reports Received from December 27, 1924, to May 15, 1925<sup>1</sup>**

### **CHOLERA**

Place	Date	Cases	Deaths	Remarks
Ceylon.....				
Colombo.....	Nov. 16-22.....	1	-----	June 29-Dec. 27, 1924: Cases, 14; deaths, 13. Dec. 28, 1924-Jan. 24, 1925: Cases, 24; deaths, 17.
Do.....	Jan. 11-24.....	2	2	
India.....				
Bombay.....	Nov. 23-Dec. 20.....	4	4	Oct. 19, 1924, to Jan. 3, 1925: Cases, 27,164; deaths, 16,228.
Do.....	Jan. 18-24.....	1	1	Jan. 4-Mar. 7, 1925: Cases, 20,233; deaths, 11,832.
Calcutta.....	Oct. 26-Jan. 3.....	59	51	
Do.....	Jan. 4-Mar. 21.....	205	164	
Madras.....	Nov. 16-Jan. 3.....	69	40	
Do.....	Jan. 4-Mar. 7.....	139	99	
Rangoon.....	Nov. 9-Dec. 20.....	9	2	
Do.....	Jan. 4-Mar. 28.....	14	10	
Indo-China.....				
Province—				
Anam.....	Aug. 1-31.....	1	1	Aug. 1-Sept. 30, 1924: Cases, 14; deaths, 10. Dec. 1-31, 1924: Cases, 5; deaths, 2.
Cambodia.....	Aug. 1-Sept. 30.....	6	5	
Do.....	Dec. 1-31.....	1	-----	
Cochin-China.....	Aug. 1-Dec. 31.....	10	5	
Saigon.....	Nov. 30-Dec. 6.....	1	-----	
Tonkin.....	Dec. 1-31.....	1	1	
Siam:				
Bangkok.....	Nov. 9-20.....	4	2	
Do.....	Jan. 18-Mar. 21.....	8	5	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 27, 1924, to May 15, 1925—Continued**

## **PLAGUE**

Place	Date	Cases	Deaths	Remarks
<b>Azores:</b>				
Fayal Island—				
Castelo Branco.....	Nov. 25.....			Present with several cases.
Feteira.....	do.....	1		
St. Michael Island.....	Nov. 2-Jan. 3.....	30	13	
Do.....	Jan. 18-24.....	3	1	
<b>Brazil:</b>				
Bahia.....	Jan. 4-Apr. 4.....	9	6	
Santos.....	Year, 1924.....	2		Bubonic.
<b>British East Africa:</b>				
Tanganyika Territory.....	Nov. 23-Dec. 27.....	17	10	
Do.....	Jan. 18-Mar. 14.....	18	12	
Uganda.....	Aug.-Dec., 1924.....	279	243	
Do.....	Jan. 1-31.....	29	28	
<b>Canary Islands:</b>				
Las Palmas.....	Jan. 21-23.....	2		Stated to be endemic.
Do.....	Feb. 4.....	1		Stated to have been infected
Do.....	Mar. 26.....	1	1	with plague Sept. 30, 1924.
Realejo Alto.....	Dec. 19.....	3	1	Vicinity of Santa Cruz de Tenerife.
Teneriffe—				
Santa Cruz.....	Jan. 3.....	1		In vicinity.
<b>Celebes:</b>				
Macassar.....	Oct. 29.....			Epidemic.
<b>Ceylon:</b>				
Colombo.....	Nov. 9-Jan. 3.....	12	9	
Do.....	Jan. 4-Mar. 28.....	16	17	
<b>China:</b>				
Foochow.....	Dec. 26-Jan. 3.....			Present.
Nanking.....	Nov. 23-Mar. 7.....			Do.
Shing Hsien.....	October, 1924.....		790	
<b>Ecuador:</b>				
Daule.....	Mar. 16-31.....	1		Mar. 16-Apr. 15, 1925: Cases, 10; deaths, 4. Rats taken, 22,290; found infected, 60.
Chimborazo Province—				
Alausi District.....	Jan. 14.....		14	At 2 localities on Guayaquil & Quito Ry.
Guayaquil.....	Nov. 16-Dec. 31.....	9	3	Rats taken, 27,004; found infected, 92.
Do.....	Jan. 1-Apr. 15.....	68	29	Rats taken, 45,027; found infected, 234.
Naranjito.....	Feb. 16-Mar. 15.....	1		
Yaguachi.....	Feb. 1-Mar. 15.....	2	1	
<b>Egypt:</b>				
				Year 1924: Cases, 373. Jan. 1-Apr. 1, 1925: Cases, 17; deaths, 9.
<b>City—</b>				
Alexandria.....	Year 1924.....	2	2	Last case, Nov. 26.
Ismailia.....	do.....	1	1	Last case, July 6.
Port Said.....	do.....	6	4	Last case, Dec. 7.
Suez.....	do.....	20	13	Last case, Dec. 20.
Do.....	Apr. 2.....	1	1	Last case, Apr. 2.
<b>Province—</b>				
Beni-Souef.....	Jan. 18.....	1	1	Last case, Jan. 18.
Dakhalia.....	Jan. 1-8.....	1	1	Last case, Jan. 7.
Girgeh.....	Jan. 9.....	1	1	Last case, Jan. 9.
Kalioubiah.....	Jan. 5-22.....	8	2	Last case, Jan. 22.
Menoufieh.....	Jan. 1-8.....	7	3	Last case, Jan. 3.
Minieh.....	Apr. 1.....	1		Last case, Apr. 1.
<b>Gold Coast:</b>				
				September-December, 1924: Deaths, 52.
<b>Hawaii:</b>				
Honokaa.....	Nov. 4.....	1		Plague-infected rodents found Dec. 9, 1924, and Jan. 15, 1925.
<b>India:</b>				
Bombay.....	Nov. 22-Jan. 3.....	4	3	Oct. 19, 1924, to Jan. 3, 1925: Cases, 28,154; deaths, 21,505.
Do.....	Jan. 4-17.....	2	2	Jan. 4-Mar. 7, 1925: Cases, 38,324; deaths, 31,799.
Do.....	Feb. 8-Mar. 14.....	26	22	
Calcutta.....	Jan. 18-24.....	1	1	
Karachi.....	Nov. 30-Dec. 6.....	2	1	
Do.....	Jan. 4-Feb. 21.....	16	16	
Do.....	Mar. 29-Apr. 4.....	4	5	
Madras Presidency.....	Nov. 23-Jan. 3.....	685	487	
Do.....	Jan. 4-24.....	658	511	
Rangoon.....	Oct. 26-Jan. 3.....	26	25	
Do.....	Jan. 4-Mar. 23.....	157	136	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 27, 1924, to May 15, 1925—Continued**

## **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
Indo-China.....				Aug. 1-Sept. 30, 1924: Cases, 25; deaths, 20. Dec. 1-31, 1924: Cases, 11; deaths, 11. Corresponding month 1923: Cases, 15; deaths, 5.
Province—				
Anam.....	Aug. 1-Sept. 30.....	4	4	
Do.....	Dec. 1-31.....	5	5	
Cambodia.....	Aug. 1-Sept. 30.....	18	15	
Do.....	Dec. 1-31.....	6	6	
Cochin-China.....	do.....	3	1	
Salgon.....	Dec. 25-31.....	1	1	Including 100 square kilometers of surrounding territory.
Do.....	Jan. 11-17.....	2	1	Do.
Iraq.....	June 29-Jan. 3.....	20	14	
Japan.....	Aug. 10-Dec. 6.....	19		
Java:				
East Java—				
Blitar.....	Nov. 11-22.....			Province of Kediri; epidemic.
Pare.....	Nov. 29.....			Do.
Samarang.....	Mar. 22-28.....	2	2	
Sidoarjo.....	Jan. 2.....			Declared epidemic, Province of Soerabaya.
Soerabaya.....	Nov. 16-Dec. 31.....	71	72	Mar. 29-Apr. 4, 1925: 2 plague rats found.
Do.....	Jan. 15-Mar. 11.....	17	14	Epidemic plague in one locality.
Soerakarta.....	Feb. 20.....			
West Java—				
Cheribon.....	Oct. 14-Nov. 3.....		14	
Do.....	Nov. 18-Dec. 22.....		80	
Do.....	Jan. 1-14.....		44	
Do.....	Feb. 5-11.....		13	
Do.....	Feb. 19-25.....		13	
Paseroean.....	Dec. 27.....			Province. Epidemic in one locality.
Pekalongan.....	Oct. 14-Nov. 3.....		29	
Do.....	Nov. 18-Dec. 31.....		177	Pekalongan Province.
Do.....	Jan. 1-14.....		81	
Do.....	Feb. 5-11.....		36	
Do.....	Feb. 19-25.....		38	
Probalingga.....	Dec. 27.....			Province. Epidemic.
Tegal.....	Oct. 14-Dec. 31.....		26	
Do.....	Jan. 1-14.....		37	Pekalongan Province.
Do.....	Feb. 5-11.....		7	
Do.....	Feb. 19-25.....		10	
Madagascar:				
Fort Dauphin (port).....	Nov. 1-Dec. 15.....	12	5	
Do.....	Feb. 1-15.....	1	1	Bubonic.
Itasy Province.....	Nov. 1-Dec. 15.....	4	2	
Do.....	Feb. 1-28.....	3	3	
Majunga (port).....	Nov. 1-30.....	1	1	
Moramanga Province.....				Nov. 1-Dec. 15, 1924: Cases, 49; deaths, 34. Jan. 16-Feb. 28, 1925: Cases, 6; deaths, 6.
Tamatave (port).....	Nov. 1-30.....	1	1	
Tananarive Province.....				Oct. 16-Dec. 31, 1924: Cases, 298; deaths, 274.
Do.....				Jan. 1-Feb. 28: Cases, 357; deaths, 295.
Tananarive (town).....	Oct. 16-Nov. 30.....	8	7	
Do.....	Dec. 16-31.....	4	4	
Do.....	Jan. 1-Feb. 28.....	4	4	
Mauritius Island.....				Year 1924: Cases, 161; deaths, 144.
District—				
Flacq.....	Dec. 1-31.....	5	4	
Pamplemousses.....	do.....	1	1	
Plaines Wilhems.....	January-December, 1924.....	54	47	Not present March, April, May.
Port Louis.....	February-December, 1924.....	101	92	
Mexico:				
Tampico.....	Apr. 6, 1925.....			Plague rat found in vicinity of Government wharves.
Morocco:				
Marrakech.....				Feb. 9, 1925: Present in native quarter of town. Stated to be pneumonic in form and of high mortality.
Nigeria.....				August-November, 1924: Cases, 387; deaths, 317.
Palestine:				
Jerusalem.....	Mar. 3-9.....	1		
Peru:				
Callao.....	February, 1925.....	6	6	



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 27, 1924, to May 15, 1925—Continued**

## **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
<b>Siam:</b>				
Bangkok	Dec. 28-Jan. 3	1	1	
Do.	Jan. 25-Mar. 21	7	6	
<b>Siberia:</b>				
Transbaikalia—				
Turga	October, 1924		3	On Chita Railroad.
<b>Straits Settlements:</b>				
Singapore	Nov. 9-15	1	1	
Do.	Jan. 4-Mar. 21	20	5	
Do.	Mar. 28-Apr. 4	4		One plague rat.
<b>Syria:</b>				
Beirut	Jan. 11-20	1		
<b>Turkey:</b>				
Constantinople	Jan. 9-15	5	5	
<b>Union of South Africa:</b>				
Do.	Nov. 22-Jan. 3	28	15	In Cape Province, Orange Free State, and Transvaal.
Do.	Jan. 4-Mar. 21	51	21	
<b>On vessels:</b>				
S. S. Conde				At Marseille, France, Nov. 8, 1924. Plague rat found. Vessel left for Tamatave, Madagascar, Nov. 12, 1924.
Steamship	November, 1924	1	1	At Majunga, Madagascar, from Djibuti, Red Sea port.

## **SMALLPOX**

<b>Algeria:</b>				July 1-Dec. 31, 1924: Cases, 409.
Algiers	Jan. 1-Mar. 31	10		Jan. 1-20, 1925: Cases, 107.
<b>Arabia:</b>				
Aden	Jan. 25-Mar. 21	12	1	Imported.
<b>Argentina:</b>				
Buenos Aires	Mar. 15-21	1		
<b>Belgium:</b>				
Do.	Jan. 1-Feb. 10	4		
<b>Bolivia:</b>				
La Paz	Nov. 1-Dec. 31	20	11	
Do.	Jan. 1-Mar. 31		12	
<b>Brazil:</b>				
Pernambuco	Nov. 9-Jan. 3	100	27	
Do.	Jan. 4-Mar. 14	103	50	
<b>British East Africa:</b>				
<b>Kenya—</b>				
Mombasa	Jan. 18-Feb. 28	66	14	
Do.	Mar. 8-28	29	7	
<b>Uganda—</b>				
Entebbe	Oct. 1-31	4		
Tanganyika Territory	Feb. 15-21	1		
<b>British South Africa:</b>				
<b>Northern Rhodesia:</b>				
Do.	Oct. 28-Dec. 15	57	2	
Do.	Jan. 27-Feb. 2	3		Natives.
<b>Southern Rhodesia:</b>				
Do.	Jan. 20-Mar. 18	3	1	
<b>Bulgaria:</b>				
Sofia	Mar. 12-18	1		Varioloid.
<b>Canada:</b>				
<b>Alberta—</b>				
Calgary	Mar. 15-21	1		
<b>British Columbia—</b>				
Ocean Falls	Mar. 7-27	6		Very mild.
Vancouver	Dec. 14-Jan. 3	32		
Do.	Jan. 4-Apr. 12	305		
Do.	Apr. 19-25	8		
Victoria	Jan. 18-Apr. 25	11		
<b>Manitoba—</b>				
Winnipeg	Dec. 7-Jan. 3	14		
Do.	Jan. 4-Feb. 27	30		
Do.	Apr. 5-11	1		
<b>New Brunswick—</b>				
Bonaventure and Gaspé Counties	Jan. 1-31	1		
Northumberland	Feb. 8-14	1		County.
<b>Ontario:</b>				Nov. 30-Dec. 27, 1924: Cases, 33.
Hamilton	Jan. 24-30	1		Dec. 28, 1924, to Apr. 25, 1925: Cases, 69; deaths, 1.
Kingston	Apr. 12-18	1		
Ottawa	Mar. 29-Apr. 4	1		
Welland	Mar. 22-Apr. 25	7		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 27, 1924, to May 15, 1925—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Ceylon				July 27-Nov. 29, 1924: Cases, 27; deaths, 1.
Colombo	Jan. 18-Feb. 7	4		
Do.	Mar. 8-28	11		
China:				Present.
Amoy	Nov. 9-Feb. 21			
Do.	Feb. 22-Mar. 28		11	
Antung	Nov. 17-Dec. 28	5		
Do.	Jan. 5-Feb. 14	15	1	
Do.	Mar. 2-29	8		
Canton	Mar. 15-28			Prevalent.
Poochow	Nov. 2-Mar. 21			Present.
Hongkong	Nov. 9-Jan. 3	6	2	
Do.	Jan. 4-Feb. 7	9	7	
Do.	Feb. 15-Apr. 4	27	13	
Manchuria--				
Dairen	Jan. 19-Feb. 1	2		
Harbin	Jan. 15-Feb. 11	5		
Nanking	Jan. 4-Mar. 28			Do.
Shanghai	Dec. 7-27	1	2	
Do.	Jan. 18-Mar. 7		8	
Chosen:				
Seoul	Dec. 1-31	1		
Colombia:				
Buenaventura	Feb. 15-28	2		
Santa Marta	Mar. 15-28			Present in mild form in localities in vicinity.
Cuba:				
Santiago	Apr. 12-18	3	1	
Czechoslovakia				April-June, 1924: Cases, 1; occurring in Province of Moravia.
Dominican Republic:				
Fuerta Plata	Mar. 8-21	3		
Dutch Guiana:				
Paramaribo	Apr. 20	1		
Ecuador:				
Guayaquil	Nov. 16-Dec. 15	4		
Egypt:				
Alexandria	Nov. 12-Dec. 31	10		
Do.	Jan. 8-28	8		
Do.	Feb. 20-Mar. 4	1		
Cairo	Jan. 29-Feb. 4	1	1	
Estonia				Dec. 1-31, 1924: Cases, 2.
France:				July-December, 1924: Cases, 81.
Do.	January, 1925	10		
Dunkirk	Mar. 2-8	1		From vessel. In quarantine.
St. Malo	Feb. 2-8	7	1	Believed to have been imported on steamship Ruyth from Sfax, Tunis.
Germany				June 29-Nov. 8, 1924: Cases, 7.
Frankfort-on-Main	Jan. 1-10	1		
Gibraltar	Dec. 8-14	1		
Gold Coast				July-December, 1924: Cases, 106; deaths, 1.
Great Britain:				
England and Wales	Nov. 23-Jan. 3	472		
Do.	Jan. 4-Apr. 11	1,912		
Newcastle-on-Tyne	Jan. 18-Feb. 21	9		
Do.	Mar. 1-7	1		
Greece				January-June, 1924: Cases, 170; deaths, 27.
Do.				July-December, 1924: Cases, 38; deaths, 26.
Saloniki	Nov. 11-Dec. 22	3		
Haiti:				
Cape Haitien	Mar. 22-Apr. 2	6		
India:				Oct. 19, 1924, to Jan. 3, 1925: Cases, 12,564; deaths, 2,857.
Bombay	Nov. 3-Jan. 3	30	18	
Do.	Jan. 4-Mar. 14	389	190	
Calcutta	Oct. 26-Jan. 8	307	170	
Do.	Jan. 4-Mar. 21	2,669	1,875	
Karachi	Nov. 16-Jan. 3	16	2	
Do.	Jan. 4-Feb. 14	52	6	
Do.	Feb. 22-Apr. 4	67	21	
Madras	Nov. 16-Jan. 3	122	48	
Do.	Jan. 4-Mar. 7	552	212	
Do.	Mar. 15-28	196	83	
Rangoon	Oct. 26-Jan. 3	86	28	
Do.	Jan. 4-Feb. 7	287	40	
Do.	Feb. 15-Mar. 28	894	127	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 27, 1924, to May 15, 1925—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Indo-China				Aug. 1-Sept. 30, 1924: Cases, 223; deaths, 76. Dec. 1-31, 1924: Cases, 488; deaths, 114.
Province—				
Anam	Aug. 1-Sept. 30	49	11	
Do.	Dec. 1-31	167	26	
Cambodia	Aug. 1-Sept. 30	40	9	
Do.	Dec. 1-31	30	13	
Cochin-China				Aug. 1-Sept. 30, 1924: Cases, 115; deaths, 49. Dec. 1-31, 1924: Cases, 50; deaths, 13.
Saigon	Nov. 16-Jan. 3	17	5	Including 100 square kilometers of surrounding country.
Do.	Jan. 4-Feb. 21	32	8	
Do.	Mar. 1-14	14	3	Do.
Tonkin	Aug. 1-Sept. 30	19	7	
Do.	Dec. 1-31	238	62	
Iraq	June 29-Jan. 10	138	67	
Do.	Jan. 11-20	4	2	
Bagdad	Nov. 9-Dec. 27	2	1	
Do.	Mar. 1-7	1		
Italy				June 29-Dec. 27, 1924: Cases, 63.
Jamaica				Nov. 30, 1924-Jan. 3, 1925: Cases, 50. Reported as alastrim.
Do.				Jan. 4-Apr. 25, 1925: Cases, 275. Reported as alastrim.
Kingston	Nov. 30-Dec. 27	4		Reported as alastrim.
Japan				Aug. 1-Nov. 15, 1924: Cases, 4.
Nagasaki	Feb. 9-Apr. 12	20	4	
Taiwan	Jan. 1-31	1		
Java:				
East Java—				
Paseroean	Oct. 26-Nov. 1	9	1	
Do.	Nov. 12-19			Epidemic in 2 native villages.
Soerabaya	Oct. 19-Dec. 31	685	212	
Do.	Jan. 15-Mar. 11	461	69	
West Java—				
Batam	Oct. 14-20	2		
Batavia	Oct. 21-Nov. 14	2		
Do.	Dec. 20-Jan. 2	19	4	
Buitenzorg	Dec. 25-31	1		Batavia Residency.
Cheribon	Oct. 14-Nov. 24	15		
Do.	Jan. 1-28	3		
Krawang	Jan. 15-21	1		
Pekalongan	Oct. 14-Nov. 24	22		
Do.	Dec. 25-31	3		
Pemalang	Jan. 6-14	1		
Preanger	Nov. 18-24	1		
Latvia				Oct. 1-Nov. 30, 1924: Cases, 5.
Lithuania				Jan. 1-Feb. 28, 1925: Cases, 6.
Mexico:				Jan. 1-31, 1925: Cases, 2.
Chiapas (State)	Mar. 1			Reported severely prevalent.
Durango	Dec. 1-31		5	
Do.	Jan. 1-Mar. 31		16	
Guadalajara	Dec. 23-29		1	
Do.	Jan. 6-Mar. 23		4	
Do.	Apr. 21-27	4		
Mexico City	Nov. 23-Dec. 27	5		
Do.	Jan. 11-Apr. 18	57		
Monterey				Jan. 24, 1925: Outbreak. Mar. 14, 1925, present.
Oaxaca (State)	Mar. 1			Reported severely prevalent.
Salina Cruz	Dec. 1-31	1	1	
Do.	Feb. 22-Mar. 31	7	1	
Saltillo	Feb. 22-Apr. 11		2	
San Luis Potosi	Mar. 29-Apr. 11		2	
Tampico	Dec. 11-31	5	4	
Do.	Jan. 1-Apr. 20	64	20	
Vera Cruz	Dec. 1-Jan. 3		10	
Do.	Jan. 5-Apr. 19		30	
Villa Hermosa	Dec. 28-Jan. 10			Present. Locality, capital, State of Tabasco.
Yucatan State	Apr. 5-11			In country towns.
Nigeria				January-June, 1924: Cases, 287; deaths, 87.
Do.				July-November, 1924: Cases, 67; deaths, 25.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 27, 1924, to May 15, 1925—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Paraguay: Asuncion.....	Jan. 4-10.....	.....	1	
Persia: Teheran.....	Sept. 23-Dec. 31.....	.....	12	
Do.....	Jan. 1-31.....	.....	10	
Peru: Arequipa.....	Nov. 24-30.....	.....	1	
Do.....	Jan. 1-31.....	.....	3	
Philippine Islands: Manila.....	Mar. 29-Apr. 4.....	3		Sept. 21-Dec. 23, 1924: Cases, 30; deaths, 2 Jan. 4-Feb. 7, 1925: Cases, 13; deaths, 1.
Poland.....				
Portugal: Lisbon.....	Dec. 7, Jan. 3.....	17		
Do.....	Jan. 4-Apr. 5.....	78	14	
Oporto.....	Nov. 30-Dec. 27.....	3	2	
Do.....	Jan. 11-Mar. 14.....	3		
Russia.....				January-June, 1924: Cases, 13,229. July-November, 1924: Cases, 3,665.
Senegal: Dakar.....	Mar. 16-22.....	4		
Siam: Bangkok.....	Dec. 23-Jan. 3.....	1	1	
Do.....	Jan. 18-Feb. 21.....	.....	19	
Do.....	Mar. 1-21.....	11	4	
Sierra Leone: Freetown.....	Feb. 7-14.....	2		From S. S. Elmina.
Kaiyima.....	Mar. 9-15.....	1		
Spain: Barcelona.....	Nov. 27-Dec. 31.....	.....	5	
Do.....	Mar. 19-25.....	.....	1	
Cadiz.....	Nov. 1-Dec. 31.....	.....	51	
Do.....	Jan. 1-Feb. 23.....	.....	10	
Madrid.....	Year 1924.....	.....	40	
Do.....	January-February.....	.....	13	
Malaga.....	Nov. 23-Jan. 3.....	.....	97	
Do.....	Jan. 4-Apr. 18.....	.....	95	
Valencia.....	Nov. 30-Dec. 6.....	2		
Do.....	Feb. 15-Mar. 23.....	5		
Straits Settlements: Singapore.....	Feb. 22-Apr. 4.....	4	1	
Switzerland: Berne.....	Mar. 15-21.....	1		
Lucerne.....	Nov. 1-Dec. 31.....	19		
Do.....	Jan. 1-31.....	24		
Syria: Aleppo.....	Nov. 23-Dec. 27.....	13		
Do.....	Jan. 4-Feb. 23.....	71	13	
Beirut.....	Feb. 11-20.....	1		
Damascus.....	Jan. 6-13.....	2		
Do.....	Feb. 11-20.....	22		
Tripoli: Tripoli.....	July 14-Jan. 2.....	53		
Tunis: Tunis.....	Nov. 25-Dec. 29.....	42	35	
Do.....	Jan. 1-Apr. 15.....	.....	307	
Turkey: Constantinople.....	Dec. 13-19.....	5		
Do.....	Mar. 16-22.....	2		
Union of South Africa.....				Nov. 1-Dec. 31, 1924: Cases, 14. Jan. 1-31, 1925: Cases, 4—natives.
Cape Province.....	Feb. 1-21.....	.....		Outbreaks.
De Aar District.....	Jan. 25-31.....	.....		Outbreak at railway camp.
Do.....	Nov. 9-Jan. 17.....	.....		Outbreaks.
Natal.....	Mar. 1-7.....	.....		Do.
Orange Free State.....	Nov. 2-8.....	.....		Do.
Ladybrand District.....	Jan. 15-31.....	.....		Outbreak on farm.
Transvaal.....	Nov. 9-Jan. 10.....	.....		Do.
Do.....	Feb. 1-21.....	.....		Outbreaks.
Uruguay.....				January-June, 1924: Cases, 101; deaths, 2.
Do.....				July-November, 1924: Cases, 53; deaths, 5.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 27, 1924, to May 15, 1925—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Yugoslavia:				
Belgrade.....	Mar. 1-Apr. 7.....	6		
On vessel:				
S. S. Eldridge.....	Mar. 23.....	1		At Port Townsend, from Yokohama and ports.
S. S. Habana.....	Feb. 18.....	1		At Santiago de Cuba, from Kingston, Jamaica.
S. S. Ruyth.....				At St. Malo, France, January, 1924, from Sfax Tunis; believed to have imported smallpox infection.

## **TYPHUS FEVER**

Algeria.....				July 1-Dec. 20, 1924: Cases, 101; deaths, 14.
Algiers.....	Nov. 1-Dec. 31.....	5	1	
Do.....	Jan. 1-Mar. 31.....	13	6	
Argentina:				
Rosario.....	Jan. 1-31.....		1	
Bolivia:				
La Paz.....	Nov. 1-Dec. 31.....	3		
Do.....	Jan. 1-31.....	2		
Do.....	Mar. 1-31.....	1		
Bulgaria.....				January-June, 1924: Cases, 191; deaths, 28.
Do.....				July-October, 1924: Cases, 5.
Chile:				
Concepcion.....	Nov. 25-Dec. 1.....		1	
Do.....	Jan. 6-12.....		2	
Do.....	Jan. 27-Feb. 2.....		1	
Iquique.....	Nov. 25-Dec. 1.....		2	
Do.....	Feb. 1-Mar. 28.....		2	
Talcahuano.....	Nov. 16-Dec. 20.....		5	
Do.....	Jan. 4-10.....		1	
Valparaiso.....	Nov. 25-Dec. 7.....		4	
Do.....	Jan. 11-Mar. 28.....		17	
China:				
Antung.....	Mar. 16-22.....	1		
Chosen:				
Chemulpo.....	Feb. 1-28.....	1		
Seoul.....	Nov. 1-30.....	1	1	
Do.....	Feb. 1-28.....	2	1	
Czechoslovakia.....				December, 1924: Cases, 5.
Do.....	Jan. 1-31.....	14		
Egypt:				
Alexandria.....	Dec. 3-9.....	1	1	
Do.....	Mar. 12-18.....	1		
Cairo.....	Oct. 1-Dec. 23.....	13	8	
Do.....	Jan. 22-28.....	1		
Estonia.....				Dec. 1-31, 1924: Cases, 5.
Do.....	Jan. 1-31.....	4		
France.....				July-October, 1924: Cases, 7.
Gold Coast.....				Oct. 1-31, 1924: 1 case.
Greece.....				May-June, 1924: Cases, 116; deaths, 8.
Do.....				July-December, 1924: Cases, 40; deaths, 4.
Athens.....	Feb. 1-Mar. 31.....	3	7	
Saloniki.....	Nov. 17-Dec. 15.....	3	2	
Do.....	Jan. 25-31.....	1		
Japan.....				Aug. 1-Nov. 15, 1924: Cases, 2.
Latvia.....				October-December, 1924: Cases, 30. Feb. 1-28, 1925: Cases, 11.
Lithuania.....				August-October, 1924: Cases, 15; deaths, 1.
Do.....				Jan. 1-31, 1925: Cases, 27; deaths, 2.
Mexico:				
Durango.....	Dec. 1-31.....		1	
Do.....	Mar. 15-31.....	1	1	
Guadalajara.....	Dec. 23-29.....		1	
Mexico City.....	Nov. 9-Jan. 3.....	80		
Do.....	Jan. 11-Apr. 18.....	91		
San Luis Potosi.....	Mar. 8-14.....		1	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 27, 1924, to May 15, 1925—Continued**

## **TYPHUS FEVER—Continued**

Place	Date	Cases	Deaths	Remarks
Morocco.....				November, 1924: Cases, 5.
Palestine.....				Nov. 12-Dec. 29, 1924: Cases, 10.
Ekrón.....	Dec. 23-29.....	1		
Jerusalem.....	do.....	2		
Do.....	Jan. 20-26.....	1		
Mikveh Israel.....	do.....	1		
Petach-Tikvah.....	Mar. 24-30.....	1		
Ramleh.....	Feb. 10-Mar. 23.....	2		
Tiberias.....	Feb. 24-Mar. 2.....	2		
Peru.....				
Arequipa.....	Nov. 24-Dec. 31.....		3	
Poland.....				Sept. 28, 1924-Jan. 3, 1925: Cases, 751; deaths, 57. Jan. 4-Feb. 7, 1925: Cases, 581; deaths, 49.
Portugal:				
Lisbon.....	Dec. 29-Jan. 4.....		2	
Oporto.....	Jan. 4-Feb. 7.....	2		
Rumania.....				January-June, 1924: Cases, 2,900; deaths, 528.
Do.....				July-December, 1924: Cases, 283; deaths, 38.
Constanza.....	Dec. 1-20.....	1		
Do.....	Feb. 1-28.....	2		
Russia.....				Jan. 1-June 30, 1924: Cases, 95,682. July-November, 1924: Cases, 34,729.
Leningrad.....	June 29-Nov. 22.....	12		
Spain:				
Madrid.....	Year 1924.....		3	
Malaga.....	Dec. 21-27.....		1	
Sweden:				
Goteborg.....	Jan. 18-Feb. 28.....	2		
Tunis.....				July 1-Dec. 20, 1924: Cases, 40.
Tunis.....	Mar. 5-25.....	9	1	
Do.....	Apr. 2-15.....	18	3	
Turkey:				
Constantinople.....	Nov. 15-Dec. 19.....	6	1	
Do.....	Jan. 2-Mar. 7.....	9	1	
Union of South Africa:				Nov. 1-Dec. 31, 1924: Cases, 345; deaths, 87. Jan. 1-Feb. 28, 1925: Cases, 159; deaths, 17; native. In white population cases, 12.
Cape Province.....	Nov. 1-Dec. 31.....	126	24	
Do.....	Jan. 1-Mar. 15.....	74	9	
East London.....	Nov. 16-22.....	1		
Do.....	Jan. 18-Apr. 4.....	3	2	
Port Elizabeth.....	Feb. 22-28.....	1		
Natal.....	Nov. 1-Dec. 31.....	130	50	
Do.....	Jan. 1-Feb. 28.....	43	5	
Do.....	Mar. 1-7.....			Outbreaks.
Durban.....	Feb. 15-Mar. 14.....	2		
Orange Free State.....	Nov. 1-Dec. 31.....	59	8	
Do.....	Jan. 1-Feb. 28.....	32	3	
Transvaal.....	Nov. 1-Dec. 31.....	30	5	
Do.....	Jan. 1-Feb. 28.....	10		Native.
Yugoslavia.....				Do.
Belgrade.....	Nov. 24-Dec. 28.....	5		Aug. 3-Oct. 18, 1924: Cases, 17; deaths, 2. Mar. 8-14, 1925: Cases, 1.

## **YELLOW FEVER**

Gold Coast.....	October-November, 1924.	4	4	
Salvador:				
San Salvador.....	June-October, 1924.	77	28	Last case, Oct. 22, 1924.

×